Xerxes' Greek Adventure

THE NAVAL PERSPECTIVE

BY

H.T. WALLINGA

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To Lionel Casson

for inspiration across the waters

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PREFACE

I have undertaken the studies assembled in the present work to substantiate a long-held feeling that the ancient traditions about the naval side of the so-called Persian Wars preserved by Herodotos and supplemented by Aischylos and others are far richer in reliable information than has been realized. So far this impressive accumulation of data has not been exploited to the full. Some crucial elements, such as Themistokles' legendary message, have generally and flagrantly been misinterpreted; others are ignored, especially the defensive motivations of Persian foreign policy and the concrete aims of Xerxes' expedition as distinct from the immoderate aspirations the Greeks came to ascribe to the Persian kings. I have made it my aim to go over the whole field and to make use of all the data that seem acceptable in themselves and can be fitted into an intelligible and complete reconstruction of this fascinating episode in the relationship of Persians and Greeks and thus pay homage to the great historian who made this undertaking possible.

It is a pleasure at the end of what has been a very long preoccupation to think back to my first visit to the scene of the battle of Salamis. This was late September 1964: I was the guest of the late Eugene Vanderpool who took me to the island and introduced me to the panorama gazed upon by the Greeks on the day of the battle. Also, thanks to the generosity of the Hellenic Navy, represented by the then Lieut.-Commander Demosthenes Ioannides, I had the chance to inspect the battlefield in a position—on the deck of a modern minesweeper—no doubt analogous to that of the commander of the Persian attackers and to take the photograph that illustrates my argument. My gratitude to those who helped me on this occasion is very great indeed, as it is to the student, already accomplished archaeologist, who assisted me at the time, the late Professor Jan Kees Haalebos. I no less owe a debt of gratitude to Professor Stefan Radt who convinced me that my unorthodox views were not based on hyperinterpretation or bad grammar, as also to the Netherlands Organization of Scientific Research for a travelling grant, and to the staff of the Netherlands Embassy in Athens for introducing me to

the Greek naval authorities. My sense of obligation has not lessened over the years.

As always, I am deeply indebted to my family for unfailing forbearance and encouragement, especially to my son Gertjan for the correction of my English.

Utrecht H.T. Wallinga
March 2005

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ABBREVIATIONS

AchHist	*Achaemenid History* I–VIII (Leiden 1987–94)
AT^2	Morrison J.S., Coates J.F., Rankov N.B. (2000), *The Athenian trireme*, Cambridge 2000 (AT^1 1986)
AM	*Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung*
CAH	*Cambridge Ancient History*
CQ	*Classical Quarterly*
CR	*Classical Review*
FGH	Jacoby F. (1923–58), *Die Fragmente der griechischen Historiker*, Berlin-Leiden
GOS	Morrison J.S., Williams R.T. (1968), *Greek oared ships 900–322 B.C.*, Cambridge
HSCP	*Harvard Studies in Classical Philology*
IA	*Iranica Antiqua*
IJNA	*International Journal of Nautical Archaeology*
JHS	*Journal of Hellenic Studies*
JPh	*Journal of Philology*
ML	Meiggs R. and Lewis D.M. (1969), *A selection of Greek historical inscriptions*, Oxford
Paroem.	Leutsch E.L. von, Schneidewin F.G. (1839), *Corpus Paroemiographorum Graecorum* I, Göttingen
Pilot	*Mediterranean Pilot* IV, London 1955 eighth ed.
RÉA	*Revue des études anciennes*
RPh	*Revue de philologie*
SSAW	Casson, L. (1971), *Ships and seamanship in the ancient world*, Princeton
Staatsverträge	H. Bengtson (Hrsg.) (1962), *Die Staatsverträge des Altertums* II. Band: Die Verträge der griechisch-römischen Welt von 700 bis 338 v. Chr., bearbeitet von H. Bengtson, München und Berlin

INTRODUCTION

Forty years ago in a searching review of two monographs on the Persian Wars (1964: 70–88: the books reviewed are Burn 1962 and Hignett 1963) Édouard Will complained about the tendency of modern studies of these wars to concentrate on *how* they had developed and on the technical analysis of the campaigns involved, while neglecting the *why* of the great crisis of the early fifth century and failing to go into what exactly happened in the course of that crisis.

This is surely fair criticism and the defects signalized go far to explain why the studies censured (not only the monographs reviewed!) carry so little conviction regarding the important aspects mentioned, in particular the strategy behind the crucial naval campaign of 480, and have reached so little agreement on the strategy and tactics behind the decisive battle of Salamis. Of course there are reasons for these weaknesses. The most important of these is that the Greeks did not have first-hand, let alone reliable first-hand, information about the motives behind the Persian policies vis-à-vis the neighbouring European continent nor about the objectives of the expeditions of 490 and 480. They were evidently reduced to speculation, and even if such speculations were confirmed or possibly inspired by Iranian informants such as the younger Zopyros, these men were too far away from the decision-making centre for their opinions to have real weight, however deeply Greek contemporaries may have been impressed. It is also clear from the very general character of the Greek speculations that their suggestions contained little substance and above all no authentic detail. Nevertheless, the view of Herodotos' informants that the Persian moves against the West, from Darius' Skythian expedition to Xerxes' invasion of Greece, were all episodes in one continued bid for universal domination has been generally adopted by modern students and even sharpened in the theory that such universal domination was an obligation enjoined by Zoroastrianism. This has resulted in a view of Persian foreign policy which, as Will says, is very coherent, but has the great defect of smoothing away the developments and making one insensitive to signs pointing to a different reality. Few historians have been able to free themselves from the dominance of this view. This is the more curious

since Herodotos' remark that the ships Athens sent to aid rebellious Ionia were the beginning of calamities for Greeks and barbarians proves that he for one did not think that Persian expansionism alone was sufficient as an explanation for Marathon and Salamis. Also, he was perspicacious enough to pick up important indications for specific objectives of Xerxes' expedition which do not easily fit into the expansionist view of the Persian policies. These indications have so far been totally ignored. Will concluded that a different view was to be preferred which allowed for developments in Graeco-Persian relations, each new episode posing new problems and necessitating new policies. He also proceeded to marshal indications preserved in the tradition (and to point out the gaps in our knowledge) to buttress his own view of the Persian policies as a series of escalating reactions to extraneous developments.

This is a conception with which I have come to agree more and more, not only because it invites and enables us to look at the successive phases of the conflict without unduly anticipating on the last one—Xerxes' great expedition—but above all because it eliminates the Persian ogre engaged in smothering the Greek world, if not indeed the whole of Europe, and to look at the empire as no more than a big power—very big no doubt when compared with individual Greek *poleis*—which had to husband its forces like any power, all contrary appearances notwithstanding, and for which the Greeks on its doorstep in the West could represent a serious threat that had to be countered by all available means, diplomatic and military, even if not necessarily leading to wholesale subjection. The consensus challenged by Will has had its most serious effects in the analysis of the military, particularly the naval, means by which the Persian kings strove to realize their aspirations and it is above all the naval side of the Helleno-Persian conflict that I shall address in the following pages.

The inadequacy of modern discussions of the genesis, the organization and the use of the Persian naval resources is indeed dramatic and has led to the perverse, and endlessly repeated, notion that Persian naval power consisted of the navies of subject cities and peoples. These smaller powers would thus have remained in possession of sometimes very considerable naval forces in peacetime, retaining in this way the means of starting rebellions, to combat which the Persians then would have been dependent on other naval subjects.

A strange corollary of this notion is the idea that after the battle of Salamis several parts of the Persian naval forces were simply sent home, the Egyptian fleet even to a part of the empire that had rebelled only seven years previously.

Again, when Herodotos inventories the Persian navy and asserts that the crews—of 1207 triremes—came up to the gigantic figure of 241.400 men reckoning 200 men per ship (but stresses at the same time that he arrives at this figure by computation: clearly it was not part of the tradition), the number of ships is generally called into question, not the total of the crews, and in any case not the number of men per ship. Yet for the former he undoubtedly had countless witnesses, crew members and citizens of Greek harbours like Phokaia and Kyme, who had seen and surely counted the Persian armada during its progress through the Aegean. On the other hand, they were unlikely to have counted the crews. His eastern informants most probably took them for granted (14 years earlier 953 triremes had been in action in the battle of Lade: no assessment of the number of their crews is made), while in the Greek motherland such a navy was so completely new that marvel and fear were the prevailing reactions and level-headed analysis of its strength no doubt restricted to very few leading individuals, if any. But precisely on the assumption that the number of ships is to be taken seriously, Herodotos' assertion that the average strength of the Persian crews was 200 men is very difficult to accept: logistically in the first place, but also because one would suppose that an enormous fleet like Xerxes', operating as it did far from its base in the Levant and in treacherous waters (not to mention enemy action) needed reserves to recover from eventual setbacks, as had indeed occurred in a previous operation which may have cost hundreds of ships. Such reserve ships at any rate cannot be taken to have been fully manned.

In this perspective an authoritative modern notion that Xerxes started out on his offensive with six hundred triremes, i.e. less than the total naval potential of the European Greeks (Korkyra and Sicily included) and not comprising any reserves truly makes the king an irresponsible adventurer. Of course if the king and his staff are presumed to have lacked all strategical and tactical insight—as is indeed often done (by implication to be sure)—one may ascribe any blunder to these men.

There are several instances of modern blindness to Persian generalship which on reflection are truly amazing. One particularly glaring

case is that of Themistokles' message and the Persian operations provoking it. Here initial perplexity about the objective of the Persians has led to mistranslation of Herodotos' clear statement on that score (VIII 70) and to the very wrongheaded notions that first the Persians had hoped or expected that the Greeks would accept battle outside the Strait and second that Themistokles' message persuaded them to attack the Greeks inside the Strait, both of which imply that the Persian naval commanders had no plan of action and blindly fell victim to a trap set by the most actively hostile of the Greek commanders.

The same sort of incompetence is assumed in the case of Xerxes' reorganization of his forces after Themistokles' message had been digested. According to many modern students all the Persian ships were then ordered to guard the escape routes by which the Greeks would try to get away from Salamis: no Persian ships were left to attack the Greeks. This very strange idea has been provoked by a mishap in the transmission of the text of Aischylos' *Persae*, two lines being interchanged (367 and 368). However, the correction of this displacement, which restores sense to the text and an attacking fleet to the Persians, is generally rejected and has even been called unnecessary, as if the possession of attacking ships made no difference to the Persian commanders.

Of a different order is the modern treatment, in fact the neglect, of figures Aischylos has preserved for Xerxes' fleet at the beginning of the battle of Salamis: a thousand for its total strength, two hundred and seven for a detachment of very fast ships and an arrangement in three files of the whole or a part of it, what Aischylos calls the *stiphos*: the latter two characterize the Persian battle-order as reorganized on Xerxes' command in reaction to Themistokles' message. The fixation on the escape routes from Salamis presumably has prevented students from seeing the connection between Aischylos' figures and the configuration of the battlefield and from realizing that given the normal course of ancient sea-battles the express mention of 207 fast ships suggests the width of an attacking line that ought to correspond with features of the battlefield. In this perspective it is a natural presumption that the three files represent a marching order that had to enable these fast ships (three times sixty nine) to reach their position in as short a time as possible.

This widespread failure to refer such data of clearly tactical import to the seascape of Salamis Strait is one of the strangest aspects of

the history of this subject. A case in point is what is probably now the best known reconstruction of the battle of Salamis, that of Hammond (1973: 255 fig. 15). Its author has thoroughly studied the terrain including the changes in depth since 480 BC and nevertheless locates the battle in the bend of the Strait between the Órmos Keratsiníou and the Sténon Naustáthmou (see Map I) where a veritable island and extensive shallows would have prevented the triremes of the Persian right wing from operating. For him and many others the Strait seems to be analogous to a chessboard on which admirals can move their ships without considering their draught for a moment.

One last aspect of the naval operations of 480 that has not received much attention is the quality of the ships and the tactical capabilities of the fleets. All too often the belief that the trireme was already an age-old constituent in all the navies concerned has led to far too optimistic appraisals, in particular of the Greek ships and their crews. Still, Herodotos is very clear on this point: *if* there was difference in quality between the ships, the advantage was on the side of the Persians. Of course this is (and was) entirely believable: the Persian navy dated from before Kambyses' conquest of Egypt and so was almost half a century old in 480; the Greek trireme fleets had come into being in the three years before they went into action at Artemision. It would be very strange if this difference in age made no difference for the proficiency of the crews. Nevertheless it must be noted that Herodotos ascribes his assertion to Themistokles who may well have had special (political) reasons to say what he said; and moreover, that he furnishes no corroborative data. As after all the Greeks won at Salamis, we may presume that the Greek triremes were not substantially inferior to their Persian counterparts, but there is no reason whatsoever to turn things on their head as has been suggested recently on the basis of loose and inappropriate affirmations by Plutarch.

Regarding all the points just enumerated I shall offer alternative treatments, in some cases elaborating on proposals made in my study of the older Greek sea-powers (1993) and applying them specifically to the fleets of the year 480, Xerxes' navy in the first place. I shall argue that the information preserved by our most important witnesses—Aischylos and Herodotos—yields a more differentiated and far more convincing account of the naval hostilities than has been realized so far, an account moreover that makes it possible to

incorporate physical data relating to the battlefield of Salamis to an unprecedented degree. My rule has been to accept Herodotos' (and Aischylos') factual information until contradiction seems overwhelming. I have indeed come to the conclusion that the disregard or rejection of parts of this information by modern students has almost always been overhasty, especially where Herodotos' competence as a 'military historian' is called in question. My ambition is to provide a more convincing context for the naval operations, not only regarding the organization and the proficiency of the opposing fleets, but also regarding the exact localization of the hostilities at their climax (the fights at the Artemision were contrary to the intentions of the Persian supreme command: I shall touch upon them only in passing).

My researches eventually lead to an analysis of the traditions concerning Salamis and to a reconstruction of the battle (or at any rate the battle plans) and to a summary exposition of the naval operations of 479 BC. In the epilogue I shall summarize my views on the grounds for Xerxes' campaign and on the causes of its failure, to wind up with some remarks on the leading figure on the Greek side, Themistokles, and on the reserves Herodotos may have had on his account.

I have very little to say about the non-naval aspects of Xerxes' expedition chiefly because I consider the ancient record on this score to be far inferior in comparison to what we learn about the operations at sea. Clearly it has been impossible for Herodotos to find dependable witnesses for the size of the army that accompanied Xerxes from Thermopylai to Athens and for its ultimate task. Was this more than the consolidation of the King's expected success in crushing the Greek fleet or was it to take the leading part in managing the crisis that would result from a naval defeat and saving as much as possible of the accomplishments of 480? Or were its orders really the conquest of Greece or indeed Europe? However certain modern students may have felt in their choice between these alternatives, I do not believe that the testimonies of Herodotos' witnesses are an adequate basis for any of them. So I have restricted myself to the naval side of Xerxes' expedition where Herodotos' material, reinforced by Aischylos' testimony, does provide such a basis.

CHAPTER ONE

THE GREAT PERSIAN WAR: THE NAVAL BACKGROUND

There is at least one aspect of the relationship between the Persian empire and its western periphery, including European Greece and its northern neighbours, which was badly misrepresented or ignored by Herodotos' informants and is crucial for the right understanding of that relationship. This factor is the genesis and character of naval power on both sides of the conflict.

Naval innovations: Hellas

On the Greek side one may speak of a capital omission by Herodotos' informants, viz. their failure to report on the revolution in the naval establishments of the Greek *poleis* in the three years preceding Xerxes' invasion. In the case of the Athenian navy this revolution brought first the replacement of the (privately owned) ships of the *naukrariai*, which the state until then had used as auxiliary naval ships to reinforce its own small navy,[1] by ships in the ownership of the state itself and second the introduction in the navies thus reformed of the trireme as the standard warship. According to Thucydides, who unearthed these changes, the former reform had already been anticipated by 700 BC in Corinth, the second also in Corinth at an undetermined date.[2] Triremes were also built before 500 in Eretria (Hdt.V 99.1) and by the Athenian tyrant Hippias (id.VI 39.1), the latter

[1] At this time the navy of the *polis* Athens consisted of two state-owned ('sacred') ships, which as institutions probably were as old as the *polis*, and the twenty ships 'bought' from Corinth for the war against Aigina (Hdt. VI 89). Regarding the naukrarian ships see Wallinga 1993: 16ff. and 2000.

[2] In this case the immediate cause may have been the creation of a trireme fleet by the tyrant of Samos, Polykrates (Hdt.III 44.2: see Wallinga 1993: 84ff.). For the hostilities between Corinth and Samos cf. Shipley 1987: 72, 97. Shipley ignores what to me appears to be most probable, viz. that the creation of Polykrates' fleet and the intensification of his piratical activities it spelled provoked the attack by Corinth and its allies.

probably as his private property and brought along by him to Sigeion, and by the early 480's in Sicily and Korkyra, whereas in Athens both took place just before Xerxes' invasion (I 13.2 and 14.3).[3] Here the first change no doubt was brought about by Themistokles' navy law which also must have caused the transition to the trireme.

When Herodotos started his researches on the Persian Wars, the recollection of this revolution had become dim, or worse. Especially in Athens, where the changes had been most far-reaching and had moreover been redoubled as a consequence of the genesis of the Delian League, memories of the old organization must have been crowded out by all the exciting new developments in naval matters and by the power politics made possible by Themistokles' navy. No wonder that Thucydides only got to the bottom of this revolution when he learnt about the early history of the Corinthian navy and its organization and thanks to this discovered the structural elements of what he calls the old, the almost new and the new method (τρόπος I 10.4, 13.2) of handling naval matters.

It is perhaps not surprising to find that Herodotos was ignorant of this complex revolution. His informants simply were silent about it. The unfortunate consequence is, however, that his representation of Greek naval power on the eve of Xerxes' expedition implies that there had been only one upheaval in this field, viz. the passage of Themistokles' navy law, and that it can be, and has been, taken to mean that this law merely led to a reinforcement of Athenian naval power, not to a wholly new situation. Modern students of the Persian wars have thus been misled into believing that the Athenian navy had been almost twice as strong in 490 as its Corinthian counterpart in 480. Hammond's assertion (1988: 518) that Miltiades in 490 commanded the full Athenian 'fleet of seventy ships with a complement of crews or marines totalling some 14,000 men'—a multiplication which makes the ships triremes—is only more explicit than most. Yet it makes nonsense of what Herodotos has to say about the then recent history of that fleet and of course it is flatly contradicted by Thucydides.

[3] See Wallinga 1993: ch. II and VI.

This has been harmful enough in itself, but really damaging was the inference, mostly drawn unconsciously, that the naval effectives the Greeks mobilized in 480 had been available in large part for a long time. This inference again has inspired, or in any case made possible, the view that the Greek *poleis*, Sparta and Athens in particular, were planning to confront the Persians from an early date. Themistokles in particular is almost unanimously assumed to have been the champion of such preparations. The proposal of 493–92, his year as *archon*, to begin the building of harbour installations and fortifications in Piraeus and thus to replace the open roadstead of Phaleron, is considered to be the first instalment of this policy. Grote already drew this conclusion, but was still very cautious in articulating it: he put the navy bill of 483 first, presumably because it is better documented, and appended the other proposal without the suggestion of a date (V 53). Later students went further, but no one as far as Eduard Meyer, who made Themistokles into the prefigurement of his own contemporary and hero Tirpitz and projected Tirpitz' long struggle to make the Reichstag agree to his navy bills (and its whole political and social context) into the decennium before 483 ([3]1939: 291ff.).[4] This entirely anachronistic construction has been immensely successful and still is, as Hammond's analogous version of Athenian and Themistoklean policy concerning Persia demonstrates (1988: 524f.).[5] However, as soon as the almost complete lack of direct evidence for it is considered in the light of Thucydides' testimony regarding the *polis* navies of the years before 483, it becomes clear that an anti-Persian policy of this nature is utterly implausible for the year 493 and indeed for the whole period up to the passage of Themistokles' navy bill. The fortunate find of a rich vein in the silver mines (which could not of course be foreseen!) changed the whole situation, and not only in Athens: Thucydides' finding that all the Hellenic navies—'Athenian, Aiginetan and others, if any'—

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[4] Meyer based his view of Themistokles, as he says, not on the tradition (which for the first half of his life has been wiped out by aristocratic hostility in Meyer's view), but on the 'facts': 'um so lauter reden die Tatsachen selbst.' These facts he takes without exception from the history of Tirpitz' naval bills (p. 293). On the contemporary inspiration of Meyer's reconstruction of Themistokles' naval policy see Wallinga 1993: 6f.

[5] Similar notions also in Ostwald's contribution to the same volume (343) and elsewhere, e.g. Wilcken [9]1962: 134, 138; Weiler 1988: 232–33.

were insignificant[6] before Themistokles' bill and included few triremes (I 14.3) evidently implies that the quasi-total of the non-Athenian triremes mobilized in 480 (*c.*180 in number) were built only after the Athenians had started their building programme.

In Thucydides' perspective, moreover, there is no reason to see this naval arms race as anything but an inner-Greek affair, the Athenians being motivated by the desire to overmaster Aigina, Aigina building its triremes to arm against this threat, and the others doing the same so as not to be at the mercy of these upstart sea-powers. Even after all these navies had been built, however, the thought of confrontation with the Persian Empire could hardly be entertained in earnest in view of the vast numerical superiority of the Persian navy alone. At Lade in 494 no fewer than 953 triremes had been ready for action. Although 353 of these nominally were the ships of the Ionian insurgents, at least 300 of this number must have been royal ships in origin (see below, p. 12 and cf. Wallinga 1993: 133) and the whole number in any case defines the naval potential of the Persian Empire at that moment. The total of 1200 consistently mentioned by Greek sources for Xerxes' expedition (see below, p. 32f.) is of course a confirmation of that figure. The entire Greek naval strength of some 380 triremes reached in 480 hardly seems a basis for a policy of deliberate confrontation: before 483 such a policy is in my view completely inconceivable. 'What chance of survival had these small city states against an emperor whose subjects extended from the Indus valley to their own threshold' Hammond rightly asks (1988: 500). With a handful of triremes, mostly if not all Corinthian, Thucydides' pentekontors (not numerous as the two in the Athenian navy demonstrate) and for the rest his long vessels (i.e. naukrarian = merchant galleys) they certainly had no chance whatsoever against Persian fleets of 600 or more triremes. A responsible statesman, as I imagine Themistokles was, cannot in my view have courted disaster by any confrontative policy, which would immediately be reported to the Persians by the Peisistratid clique. Also, he had even less reason in 493 than in 483 to 'brandish Darius and the Persians at the Athenian assembly' (Plut. *Them.* 4.2): the war with Aigina will have been sufficient inducement to put forward his proposal about Piraeus.

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[6] Labarbe's assertion (1957: 125) that 'La notion de βραχὺ ναυτικόν est toute relative' is based on wishful thinking and failure to consider the parallels Thuc. I 89.3, III 40.3, V 111.2 and VIII 77.6.

And even in 483, as Herodotos stresses (VII 144.1), in defending his navy bill he still argued with the Aiginetan war alone (see below, p. 26ff.), a statement that is corroborated by Plutarch (*Them.*4), no doubt on the basis of more testimonies than we possess.

It is of course curious that what was on any account and regardless of Thucydides' findings a very considerable reinforcement of the Athenian navy and the Greek naval forces generally has never been seen—not even by Will—as a factor influencing the Persian attitudes towards Greece. For even if one follows Herodotos' informants in dating Xerxes' decision to mount his invasion before Themistokles' bill was brought in (an element in the Greek tradition that is all too easily accepted as gospel: see below, p. 25f.), one still expects repercussions of the passing of that bill, if only last-hour reinforcements of their naval forces by the Persians. That such reinforcements are not mentioned in our sources and not taken into consideration in modern studies, is a measure of the neglect—ancient and modern—of the naval side of Xerxes' Greek adventure and one more reason to follow Will in trying to give more attention to such episodes, which involved new facts and so resulted in new problems for the Persian king.

Naval innovations: the East

This is the more urgent because there is another neglected aspect of the relationship between Persians and Greeks, again in the maritime sphere. The naval revolution in the Hellas of Thucydides' definition (including the Ionians and the Western Greeks: I 13–14) was preceded by as radical a naval upheaval in the East, an event which is even less recognizable in Herodotos' work. In this case Herodotos' Greek informants are hardly to be blamed: this upheaval took place much earlier than the one in Greece and it had in its first phase come about in the world of Egypt and Phoenicia, i.e. outside the Greek world however defined.[7] The evidence for it,

[7] It is true that in the first action of the Persian navy in the war against Egypt a ship from Mytilene was involved which is implicitly described as a trireme (III 13.1 and 14.4–5), but since Herodotos stresses that at that moment this navy *wholly* depended on the Phoenicians (III 19.3), this Mytilenaian ship must be taken as a white elephant and the tradition about it as embellished, if not worse.

preserved all the same by Herodotos, is therefore indirect. Like the revolution in Greece the eastern analogue had two main aspects: first the 'invention' of the trireme,[8] second the exclusive use of this new type in the new navy of the Persians, which from that moment on was without a serious rival. This navy was the creation of Kambyses, king of the Persia that with the subjection of Egypt in 525 became the unchallenged superpower in western Asia and in that year started to establish effective dominance over its possessions bordering the Mediterranean. The chief instrument of that dominance, the Persian navy, was organized like its later Roman counterpart after 260 BC: state-owned, in this case royal, ships which were manned by the coastal subjects.[9] Its creation was an event of immense significance, for it made Persia the first power controlling western Asia to have its own navy. The position of this power vis-à-vis its coastal possessions thereby became incomparably stronger than that of Nebuchadrezzar and the Assyrian predecessors of that potentate. The strength of this position can to some extent be measured by the effect of the loss of the Aegean fleet of this navy after the defeats of 480/479 and the organization by Athens of the Delian league: the Persians then had to give up not only the area immediately adjacent to the coast of the Aegean (all of which they had possessed since about 540), the south coast of Asia Minor west of Phaselis and the Aegean islands, but a much wider zone with its tribute-yielding capacities (*Staatsverträge* II no.152).

It is very much to be deplored that so little is known for certain about the organization of this navy, especially regarding the way in which the subject provinces and cities that furnished the crews were implicated in it. One would like to know for instance whether the particular excellence of the Sidonian squadron in Xerxes' fleet and the position of honour of the Sidonian king, like that of queen Artemisia (VII 96, 98 and VIII 68α), implies a different status of

[8] In the development of the trireme I distinguish between on the one hand the invention (possibly in the Greek West) of the *trikrotos* oarage, conceivably for ships of pentekontor size, and on the other the mounting of this oarage (almost certainly in the sphere of the eastern kingdoms) on much bigger (longer) ships: see Wallinga 1993: ch. V 1).

[9] Diodoros XI 3.7 (on Xerxes' fleet): this statement of Diodoros, which must go back to Ephoros, regards only the squadrons manned by Greeks, but must be generalized without any doubt. Other traditions, going back to Ephoros and Lysanias of Mallos consistently speak of Persian naval ships as 'royal' (*basilikai*: cf. Wallinga 1993: 119 and n.36).

the squadrons in question, e.g. that they had a special function like that of the 'peace-time patrols' in the navy of the Delian league[10] and so owed their excellence to regular practicing; and whether the cities thus involved were compensated for this service in a deduction from their tribute or other preferential treatment. Something like this would explain why Herodotos' informants could suggest that the fleets mobilized by Darius and Xerxes consisted of the navies of subject cities and provinces, i.e. that Halikarnassos, Cilicia and all the others contributed their own fleets, a suggestion which I consider absolutely incredible.[11] Herodotos indeed confutes it himself when he reports that Miletos in 500 could not help the Naxian cabal for lack of ships (while they contributed no less than 80 triremes in the battle of Lade: V 30.4 and VI 8.1) and even more emphatically in his statement that the Cyprian insurgents in the Ionian Revolt had no ships of their own and therefore proposed to borrow the ships of their Ionian fellow-rebels (V 109).[12] On the other hand, if the manning of standing squadrons-'peacetime patrols' was entrusted to a few cities like Halikarnassos and coupled with privileges, this could explain that such a squadron was described to Herodotos as 'our' squadron by Halikarnassians and the exceptional character of the Halikarnassian contribution to the imperial navy mistaken by him as the rule for all the other contributions.[13]

Consequences of the creation of the Persian navy

Once this naval organization had been set up by Kambyses and perfected under Darius and once the ships were in place (the vast

[10] For these disregarded and maltreated patrols see Meiggs 1972: 427 Endnote 13 and Wallinga 1993: 185 n.32.

[11] Chiefly because to base a naval arm on an auxiliary system (as the Romans did before 260 BC) was too risky for a power not possessing a strong navy *and* the concomitant expertise of its own (as Athens did in the Delian League). See Wallinga 1993: 118ff.

[12] The proposal is interesting because it implies that the Cyprians could handle the triremes of the Ionians just as well as they! No doubt the ships to be manned by the Cyprians under the system of the Persian navy and in which the Cyprian rowers exercised were not stationed in Cyprian ports but at the central base in Cilicia (see Wallinga 1991 and 1993: 124) and so were not available to the insurgents.

[13] The tendency to make this mistake will have been especially strong in those of Herodotos' informants who were conversant with the organization of the Delian league.

majority at bases in Cilicia and Kyme: below, II n. 24), the coastal subjects found themselves under much tighter control and far more involved in the military activities of the empire. In the West this involvement became manifest almost immediately after the Aegean fleet of the Persian navy was established,[14] when it was mobilized for Darius' Skythian campaign. 600 ships we are told took part, an extremely high number, but irrespective of how this figure must be valued[15] this operation must have been without any parallel in the experience of its Greek crews and other witnesses. Even if the average crews are put at only about fifty oarsmen (the absolute minimum for a trireme) and ten to twenty others (seamen and marines: see below, I n.24, II n.28), this fleet comprised 36,000 to 42,000 men, numbers no doubt beyond the imagination of all but very few Greek witnesses. However these crews were recruited, the rowers and seamen probably fully paid as in the Delian league, their employment far from home for a long period must have deeply encroached upon the daily life of their communities, certainly if the period in question included one of the harvests. On the assumption that Herodotos' list of twelve Greek tyrants accompanying Darius to the Danube (IV 138) implies that the crews came from the twelve *poleis* they governed for the king, each *polis* supplied upwards of 3,000 able-bodied men on the average, no mean blood-letting. Such wholesale commandeering on the part of the Persian authorities may well have caused serious problems for the tyrants in question, especially if the demand was made at short notice. They may specifically have objected to the very large number of ships they had to man, as is perhaps suggested by the different estimates made by Aristagoras and Artaphrenes for the strength of the fleet to be mobilized for their intervention in the Naxian affairs (V 31.3 and 4). Especially if the Persian authorities were high-handed, or if language difficulties made it seem that way and aggravated minor misunderstandings,

[14] This must have happened between the occupation of Samos and its elimination as the dominant sea-power in the Aegean and the mobilization for the Skythian campaign, i.e. between *c.*517 and 513–12. For the dates see e.g. Busolt 1895: 513, 523 n.1; Jeffery 1976: 218; Shipley 1987: 104ff.

[15] It is surely probable that not more than half were triremes. Though no other type is ever specified for Persian fleets in action, pentekontors were used on a par with triremes in the building of the bridge of boats over the Hellespont in 480 (VII 36.1), and the ships now on their way to the Danube were intended for a comparable purpose (IV 89.1).

the naval service could easily become a cause, and the mobilization of the fleet an opportunity, for rebellion, as indeed it may have done in 500–499.[16] The conflict between Aristagoras and Megabates flared up over a (very public) question of discipline, but may well have been fuelled by other, less open but more serious, dissensions.

The Ionian Revolt demonstrated to the Persians that their splendid navy, which enabled them to dominate their coastal possessions as no other power before them, could also become the undoing of their domination in that same area. That is not to say, however, that the obvious risks involved in the unavoidable employment of the coastal subjects in the crews were not recognized from the beginning. They must have been the reason that—with the possible exceptions already alluded to (above, p. 13)—the ships were stationed in strongly guarded bases and that probably few marines were of subject status.[17] In 480 at least, as Herodotos reports (VII 96.1), strong squads of thirty marines were taken from Iranian army units, though the latter precaution may only have been taken after the use of subject marines had proved ruinous in 500–499.

Such precautions to be sure can only have been a small part of all the measures the Persians had to take to make their naval arm a working and above all a dependable affair. I would suppose that the most important of these measures was the adjustment of the relationship with the subjects involved in it with regard to their rights and duties. Here we can only raise questions which Herodotos and his informants evidently did not think of. For example, were earlier obligations cancelled when naval duties were imposed? And what was done about the navies the subject *poleis* possessed, as we may assume on the analogy of the *poleis* in Greece? Understandably, clear answers to these questions are not directly forthcoming in Herodotos (or any other historian), but there are hints. The reputation Herodotos ascribes to Darius of being a *kapêlos*, a man dealing with his subjects as a trader, suggests to me that like a trader with his clientèle he bargained with his subjects, especially about the allocation of rights and duties. For a definite judgment, however, we lack data.[18]

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[16] Cf. the revolt of the Phoenicians in the middle of the fourth century (Diodoros XVI 40.3ff.), which may also have been triggered by Persian high-handedness in connection with the mobilization of the navy (see Briant 1996: 703).

[17] On this aspect of the Persian naval organization see below, II n.35.

[18] See Wallinga 1984: 410f. For a different view see R. Descat 1994: 161–166.

Persian policy vis-à-vis the coastal subjects: the treatment of Thasos

Concerning the navies of the subjects there is an important indication in the treatment of the Thasians who had built a fleet and fortifications after (or while) warding off Histiaios (VI 46.2), but nonetheless were ordered (after having submitted to Mardonios?) to raze their walls and surrender their ships. As Herodotos implies that this fleet had been built at the very end of, or even after, the Ionian Revolt, it is most probable that it consisted of triremes[19] and for this reason will have been considered far more dangerous than the pentekontors we must suppose had constituted the navies of the Asiatic Greeks at the moment of their submission. Concerning these old-style naval armaments—the ships in which will mostly have been 'naukrarian', i.e. merchant, galleys—the Persians surely had no reason to worry. This must be the reason that nothing is ever recorded about these fleets.

The treatment meted out to Thasos in 493–92 makes abundantly clear how chimerical the current view of the organization of the Persian navy is. *If* this naval arm really had consisted of the fleets of the subject states, the submission of the island ought to have been sufficient. The Thasian fleet would then have been a welcome reinforcement for the Persian naval forces[20] and could have remained in its own harbour under the conditions currently assumed for the fleets of Miletos and its equals. The outrage at the treatment of the island, which can be heard in Herodotos' comment that the Thasians 'had not lifted a finger against the Persians' (VI 44.1) draws attention to another aspect of the situation that has been totally disregarded. In defending itself against Histiaios Thasos had been, at least indirectly, on the side of the Persians during the last convulsions of the Ionian Revolt. The fact is that Histiaios' attempt on Thasos was very dangerous for the Persian position in the north of the Aegean. If he had succeeded in conquering the island and had been able to exploit its financial resources (and its triremes) for his own purposes, he would have recovered the position (and more than that) from

[19] In the same North-Aegean area Miltiades had built this type as well, probably at the same juncture: VI 41.1.

[20] In defiance of Herodotos' testimony Fol and Hammond do indeed assert that Thasos provided ships (1988: 248).

which Megabazos had removed him in 512[21] and thus could have made the reconquest of Thrace by the Persians very difficult indeed, not to speak of the threat to their entire position in the Aegean.

In this light it is hardly an exaggeration to see in Thasos' defence against Histiaios a very important service to the Persian empire. It was therefore not easy to understand that this *polis* was forced first to submit and then to renounce its defences. No wonder that this was seen as particularly unfair. If the Persians did indeed take the second step only after a delay as seems to follow from Herodotos' report,[22] this could mean that they shared this feeling up to a point, but that it was impossible for them to forsake the principle that subjects could not be allowed their own trireme fleet, however loyal they were and however important their services. Of course, just after the Ionian Revolt such an intransigent policy on the part of the Persians is understandable, especially in case the Thasian navy was already numerically strong. Also there were compensations, for the occupation and pacification of Thrace no doubt was important for the Thasians, especially with a view to their *peraia*.

This brings me to an aspect of Persian action in the Aegean that is relevant regarding all the coastal subjects, not only Thasos. In the perspective of Thucydides' finding concerning the character of the Greek *polis* navies, which in my view is fully applicable to the Aegean *poleis* (with the exception of Phokaia and Polykratean Samos)[23] and most probably also to the Phoenician cities, the size of the Persian naval arm was huge. Hence the contribution that was required of these *poleis*, both in money and in manpower, must have been without precedent in the experience of the subjects. Nine *poleis* took part in the battle of Lade and manned 353 triremes at that occasion. In the old days their united war fleets according to Thucydides' model should have consisted of a few dozen pentekontors—the state-owned ships—and a few hundred naukraric ships—i.e. assorted merchant

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[21] Cf. V 11.2, 23, 24 and Wallinga 1984: 422ff.

[22] VI 42 and 48: on Herodotos' account of the vicissitudes of Thasos and simultaneous events and the chronological difficulties inherent in it see Von Fritz 1967: II 194–97.

[23] These two sea-powers are meant by Thucydides in the last sentence of his chapter I 13. Contrary to current interpretations he does not distinguish them from other 'Ionian' sea-powers: they *are* his Ionian powers: see Wallinga 1993: ch. IV, esp. p. 66, n.1.

galleys—with crews totalling some 18,000 men at the outside.[24] For the Aegean fleet of the Persian navy in its initial set-up of 300 triremes (see below p. 35) a maximum of 51,000 rowers could be commandeered and thousands of seamen and marines.[25] At the maximum this must have been a very exacting requirement, the more so since there was also the tribute. At this rate the coastal subjects, also those in the eastern Mediterranean, were heavily burdened indeed. But just as in the case of Thasos there may have been compensations and perhaps even actions on the part of the Persians to support their capacity to bear this burden.

Concerning the Persian motives to undertake the Skythian expedition Momigliano long ago has made an illuminating suggestion, which is relevant in this context (1933: 336–359). He drew attention to the resemblance of this action to Philip II of Macedon's campaign against the Triballi and Caesar's invasion of Britain. In this perspective he qualified the Persian objective not as conquest, but as display of power and deterrence vis-à-vis the Skythians in order to protect the new province of Thrace and the Greek colonies in that province and in the Skythian littoral against raids. He pointed out that the Greeks who furnished ships (for him their own ships!) to the king must have had reason to want their colonies absorbed into the Persian sphere of authority. Persian rule and military presence would discourage the tapping of their wealth by raiders and promote their trade with the mother cities and so boost the capacity of the latter to pay tribute. In Momigliano's view the fact that Darius' fleet was exclusively Greek[26] indicates that Greek interests in particular were involved in this undertaking. As I noted, he thought that the *poleis* provided their own combined fleet. If in reality they

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[24] Reckoning 30 pentekontors and 300 naukraric ships with a maximum of 1500 and 9000 rowers respectively, and 20 to 30 seamen and marines per ship. Of course these figures are hypothetical, but as such they are in the right order of magnitude.

[25] This estimate is based on the data furnished by Herodotos for Xerxes' fleet (VII 184.1).

[26] This is indeed most probable, but not absolutely certain, for Herodotos asserts that the king had contingents of all the peoples in his realm under his command, numbering 700,000, the fleet of 600 ships not counted (IV 87.1). This seems to imply that the crews were furnished by all the coastal subjects, but the implication is belied a page further on, where the fleet is said to have been brought up by the Ionians, the Aeolians and the Hellespontines (IV 89.1). Also the tyrants accompanying the fleet and involved in the celebrated debate concerning the breaking up of the bridge were all Greeks (IV 138).

provided the crews for an imperial fleet that was far bigger than that, his reasoning is of course even more cogent. Also, one has perhaps to take into consideration, as Momigliano did, that the trade of the subjects was exposed to the competition of the citizens of neighbouring *poleis* that were still free.[27]

This hypothesis regarding the motives for the Skythian expedition appears to me very much more convincing than what Herodotos' informants reported (under the inspiration of Skythian war propaganda? cf. IV 118.1). It is a clear indication that here at least the argument from Persian imperial ambitions is unnecessary and this again suggests that the same may apply to the other Persian initiatives regarding Europe. In any case it can be applied to the Naxian affair. In this case Herodotos' stressing the Naxian democracy's military strength—no less than 8000 hoplites and numerous galleys (V 30.4)[28]—implies that that was one of the arguments, if not *the* argument, which decided Artaphrenes to take part in the intervention. In this case it is not unlikely that the competition the new democracy could (or already did) offer to Ionian trade was an additional reason, but no doubt the ships were more important. Especially if the Naxian navy Herodotos projects here was associated with the democratic regime, hence of recent date (see Jeffery 1976: 181), it stands to reason that some of the 'many galleys' were triremes, in any case that the building of ships of this type was expected: the proximity of the Persian navy and the even closer nearness of Polykrates' triremes, now eliminated, ruled out the building of other, older naval types. If triremes were already being built, Artaphrenes' willingness to intervene is only too understandable. For instance, even a small number of triremes could threaten the peace-time patrols which in all probability were employed by the Persian naval command (see above, p. 12f.): of two possible ones, the squadron commanded

[27] Momigliano followed E. von Stern (*Klio*, IX (1909) 144), who had inferred from the pottery finds in the Black Sea area that at the end of the sixth century Athenian trade was pushing out the Ionian (Milesian) competition. Though this inference has now been disproved and the idea of commercial competition between *poleis* abandoned, it is probable enough that subject traders who shouldered the burdens imposed by the Persians complained about the unfair advantages enjoyed by their free colleagues. See for an assessment of Von Stern's ideas the study by S. Dimitriu and P. Alexandrescu (1973: 23–38).

[28] Herodotos' *ploia makra* no doubt are galleys that could be employed in defending Naxos.

in 480 by the Halikarnassian queen Artemisia numbered five ships (VII 99.2), that under the hyparch of Kyme, Sandokes, fifteen (VII 194.1). The hegemony of Naxos over Paros, Andros and other Cyclades (V 31.2)—potentially a prefiguration of the later league of *Nesiotai*—may well have been worrying the Persians. In any case, that Artaphrenes' willingness to mobilize the fleet was not merely a gesture towards Aristagoras but dictated by Persian interest, was made clear in 490 when Naxos was the first objective of Datis and Artaphernes (VI 95.2).

By that time, of course, the start of the Ionian revolt had made abundantly clear that the navies of *poleis* like Naxos and Eretria, small as they might be, could represent great danger to the Persians. Still, it seems more than probable to me that in 500 the potential danger was sufficient reason for them to aim at the elimination of those fleets, and also to frighten off their owners like they had tried to do in the case of the Skythians. In the context of Datis' expedition the Athenian navy is not mentioned by Herodotos or others and the attempt on this city is perhaps sufficiently explained by the presence of Hippias in Datis' following.[29] On the other hand, if the 'purchase' of the twenty Corinthian ships (VI 89) had been brought about before Marathon, as is very probable,[30] this reinforcement may well have influenced Persian policy and the planning of this expedition. It goes without saying that this was unknown to the Greek contemporaries, just as they had no information regarding the reaction of king Darius or his staff to the failure of the last part of this venture. The ideas of the Greeks on Darius' thirst for vengeance may not be implausible, but presuppose a preoccupation on the king's part with Athens for which they give no intelligible reason whatsoever. After all, the expedition as a whole had been a success. Naxos and its dependencies and Eretria had been eliminated as military and naval powers and this, as Will holds (1964: 75–76; 1972: 96ff.), will have been the chief objective of the enterprise. And after the total failure of Miltiades' expedition to the Dorado of the North (VI 132)[31]—a godsend for the Persians!—there was certainly no question of any danger from the side of Athens, acute or otherwise.

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[29] See Will 1964: 75f.; id. 1972: 97.

[30] They were included in the fleet of seventy ships that started out under Miltiades a short time after the battle (VI 132).

[31] The widespread notion that Miltiades was out to 'force <the Cyclades> to

Persian plans after Marathon

For want of information about Darius' next projected moves in the Aegean, Greek amateur strategists have of course speculated about supposed plans. Maybe speculations of this sort were nourished by reports on shipbuilding, movements of troops and the like, which after Xerxes' great invasion could retrospectively be interpreted as preparations without in reality being anything of the kind. However arrived at, these speculations are not to be taken seriously, as little as the Greek ideas about Xerxes' motives and hesitations. To be sure, it was patently obvious that after Darius' death his successor had to make an inventory of all the real and potential dangers threatening his realm, but in what we are told about the developments, naval or otherwise, in the Aegean area during the years between Marathon and Xerxes' accession no dangers are mentioned. As far as Herodotos' information went, the only turmoil that confronted Xerxes at that juncture was the revolt in Egypt.

It is a great pity that nothing whatsoever is known about this revolt beyond the fact that it occurred, nor about the repercussions it might have had in neighbouring Syria-Palestine, as a result of which it could have become extremely threatening. Its suppression in any case was no mean achievement on the part of the new king, who will indeed have taken it very seriously. Like his predecessors he was no doubt aware that before its fall in 525 the Saïte kingdom had represented a double threat to Persia's dominion of that coastal fringe, i.e. through its possession of a war fleet *and* through its ancient friendly connections and military collaboration with the maritime cities of the Levant and the Aegean area. Revolt in Egypt therefore always spelled a twofold danger, the loss of the rich province itself *and* the loss of the secure possession of Syria-Palestine, Cilicia, Cyprus and of positions in the Aegean. If a free Egypt regained something like Necho's navy or establish an alliance with free Greek naval powers, like Amasis' association with Polykrates, or both, it would indeed become a very serious threat to Persia's position in the Mediterranean littoral. The full strategic potential of such an

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renounce their allegiance to the Great King' (e.g. Fine 1983: 287) goes against Herodotos' clear report: see Wallinga 1993: 144ff. It is far more probable that Miltiades wanted to take a leaf out of Histiaios' book (above, 16f.).

Egypt could not perhaps be foreseen in 485, certainly not to the extent it was realized in Hellenistic times by the Ptolemies, but the Persian kings cannot in my view have failed to grasp the elementary factors determining the Egyptian danger. By the time he had suppressed the revolt in Egypt Xerxes in other words had not only pacified this very important province, but also secured the stability of a vital part of the Mediterranean fringe of his realm.

Themistokles' navy bill

With the passing of Themistokles' navy bill this situation was changed at one stroke. In the Persian perspective the building programme now initiated could shift the balance of power in the whole Aegean area, since it was foreseeable that Athens' neighbours around the Saronic Gulf would react by building their own fleets of triremes. As far as Aigina was concerned this was of course a foregone conclusion and once the arms race was started it could be expected to sweep other *poleis* along, in the first place Corinth.[32] In the eyes of the Persians this explosive activity could from the beginning be expected to result in aggregate naval strength that could endanger their positions in the whole Aegean area far more than Naxos' and Thasos' navies ever could have done. News of this alarming development will have reached the Persians soon. They had competent and trustworthy agents in the Peisistratids who no doubt were informed without delay by their followers in Athens. In this way a pre-emptive response of the Persians was practically foreordained, given their preoccupation with the safety of their coastal satrapies and their naval arm. It is uncertain, however, whether the Greeks were (and could be) aware of this.

Possibly there were Greeks who were able to learn from the fate of Thasos, especially the circles that encouraged Herodotos to regard the support given to the Ionian insurgents by Athens and Eretria as

[32] Corinth not only had a long tradition of naval pioneering, but its colony and rival Korkyra was already building triremes before the Athenians had started (Thuc.I 13–14). Thucydides' assertion that Corinth was the first Greek *polis* to build triremes (I 13.2) may well mean that (some) ships of the new type had been built here already before 500 and that the triremes built then and later made pentekontors redundant which were then 'sold' to Athens (VI 89).

the 'beginning of calamity for Greeks and barbarians' (V 97.3). Such men might have been capable of analyzing the situation brought about by Themistokles' law and of inferring that a Persian reaction was to be expected. It seems clear, however, that Herodotos did not meet them. Instead his informants offered an undifferentiated representation of the Persian kings'—Darius' and Xerxes'—western expansionism. The centre piece in this representation is a timetable for the ten years between Marathon and Salamis, which serves to validate this view of the matter. It has been summed up as follows by How:

> '490 BC (winter)—487 (spring). Orders given <by Darius> for another expedition, followed by three years (ἐπὶ τρία ἔτεα, vii.1.2) . . . of preparations.
> 487 BC (τετάρτῳ ἔτεϊ, vii 1.3). Revolt of Egypt.
> 486 BC (autumn τῷ ὑστέρῳ ἔτεϊ <vii 4>). Death of Darius.
> 485 BC Xerxes reduces Egypt (δευτέρῳ ἔτεϊ μετὰ τὸν θανατὸν τὸν Δαρείου, vii.7)
> 484 (spring)—480 (spring). Four *full* years of preparation (τέσσερα ἔτεα πλήρεα, vii.20.1)
> 480 (spring). In the spring of the fifth year the expedition proper begins with the march from Sardis (vii.37.1 ἅμα τῷ ἔαρι παρεσκευασμένος ὁ στρατὸς ἐκ τῶν Σαρδίων ὁρμᾶτο). The march of the king from Susa to Critalla belongs to the preparations for the expedition.' (How-Wells 1928: II 133)

What immediately catches the eye in this summing up is the total lack of references to individual aspects of the preparations. As it stands, it strongly suggests that the duration and the arrangement of the episodes are purely a function of events that have nothing to do with the preparations. The four full years 484–480 seem to be no more than the stretch of time between the spring when Xerxes had his hands free again after the quelling of the Egyptian revolt; the three preceding years are taken up exclusively by that revolt, not leaving the king time to occupy himself with the West; the first three of the ten years are taken up by feverish activity in 'Asia' as a result of Darius' order to furnish galleys, horses, grain and merchantmen (VII 1.2). The very curious thing is that in the sequel the results of this 'feverish activity' are ignored. The activities of the four full years of Xerxes' own preparations are laconically mentioned as if nothing at all had been accomplished under Darius. This is all the more striking as Herodotos took the trouble of putting Xerxes' achievement

in perspective by comparing it with earlier feats: first Darius' own Skythian expedition, then the invasion of the Skythians in Asia Minor, further the legendary campaign of the Atreidai against Troy and finally the invasion of Europe by Mysians and Teukrians (VII 20). The impression is thus given that, unless diverted by calamity elsewhere, the Persian kings were exclusively occupied with Europe. This may well have been what Herodotos' informants believed, and wanted to believe because it made the ordering of the supposed Persian events much easier: no external factors like Themistokles' law need be taken into account. This definitely suggests that in this ordering hard facts played almost no part and that it could be an empty construction in its entirety, though taken as an adequate summation of the events.

It is therefore almost a miracle that nevertheless Herodotos preserved information on at least one feature of Xerxes' preparations which is dated more precisely. Its temporal place in the 'four full years' is not explicitly stated, which is strange especially since this place is not at the beginning of that period, as one would expect in view of the huge undertaking in question. Chronologically it stands isolated, but in this isolation it is of the greatest interest. It is the digging of the canal through the neck of the Athos peninsula (VII 22–24). This important achievement was of course well known to scores and hundreds of Greeks and here Herodotos no doubt had Greek informants, e.g. the Akanthians (cf. VII 116). It is dated 'about three years before' (ἐκ τριῶν ἐτέων κου μάλιστα: VII 22.1). This phrasing evidently means that Herodotos heard several reports which differed on the exact date, or perhaps rather failed to give an exact date. One wonders whether there might have been a 'Persian' with a deviant story among his informants, but on reflection this appears improbable: if this had been the case he probably would have said so. And as there were so many Greeks involved (as also in the other features mentioned in this context: the preparations for the bridge of boats over the Hellespont and the making of food stores: VII 25), there were no doubt diverse Greek traditions. It is unfortunate that Herodotos does not state the date from which he reckons his three years, but if his informants were Greeks, it can hardly be in doubt. For Greeks this date must have been the moment of the actual use of the canal by Xerxes' fleet.[33]

[33] Macan's alternatives—the king's departure from Susa or from Sardes (at VII

The digging of the canal therefore began in summer 483 and was completed in the same season in 480. This means that the start approximately coincided with the passing of Themistokles' navy bill on the assumption that the latter event took place at the very beginning of the administrative year 483–82, i.e. shortly after the summer solstice of 483.[34] For such an early dating there is indeed a very good reason. The building of the 200 triremes which were ready in summer 480 (VIII 1.1, 14.1) was an unprecedented feat. Total lack of information regarding the details of this undertaking must not tempt us to assume that it could be accomplished in less than all the time that can be imputed to it, i.e. as far as we know from July 483 at the earliest to about July 480 at the latest.[35] Such an assumption would be the less plausible as it must have been very difficult to attract labour from outside Attika once trireme building had started there also.[36] If this is accepted, there is every reason to consider the possibility that Themistokles' navy bill was passed before Xerxes' preparations had started, or rather before the king had decided on the Great Invasion, in other words that this decision was the prompt answer to the threat the new Athenian navy and its prospective Greek rivals together represented.

At first sight this may seem an irresponsible idea and it certainly is irreconcilable with Herodotos' dating of the preparations in its full extent over the ten years between 490 and 480. However, as I have

22.1)—are hardly possible, even in the mouth of a Persian. They are datings typical for modern historians.

[34] In Athens the conciliar (administrative) year began soon after the solstice (cf. Meritt 1961: 202–03).

[35] The actual building of triremes was not in my view technically different, at least not much, from the building of pentekontors: to the two-banked rowing apparatus of these galleys a third (lowest, thalamian) bank had to be added and the three banks had to be lengthened for the longer trireme (Wallinga 1993: ch. V 1). This cannot have been beyond the capacities of skilled pentekontor builders. On the other hand, the start of the whole building operation must have been slow because the supply of unprecedented quantities of timber had to be organized, and may well have continued to give problems. Alas, 'not even an anecdote survives to throw light on the practical steps taken to implement the decree' (Meiggs 1982: 122). Meiggs' suggestions regarding these steps (123–26) are entirely plausible except his idea that the Athenians could have 'called on experienced shipwrights from other states.' Undoubtedly such men were employed by their own *poleis* at this juncture.

[36] Against this background Hammond's adventurous theory that the full strength of this fleet was already mobilized in September 481 (1988: 559ff.), which for many other reasons is thoroughly implausible, becomes utterly unbelievable.

argued, this dating is not trustworthy and need be based on no more than the hypothesis that the last years of Darius and the first years of Xerxes must have been wholly devoted to the plans for the conquest of Europe and to these preparations. Particularly suspect in what Herodotos was told on this score are the three years of preparations under Darius. I have already noted that the results are ignored in the sequel, though one would expect the feverish activity they entailed to be remembered not merely generally but in detail. As to Xerxes' preparations, the four full years do not fare better and here it is odd that details are only mentioned for the last three. This strongly suggests that the preparations were restricted to these three years, that 'three years' were indeed assigned to them in most, if not all, local traditions and that—as soon as the idea had come up that Darius already ought to have been mounting an attack—they were assigned en bloc to his supposed preparations too. Confirmation that this was done may be found in Athenian tradition.

The fact is that in Athens at the moment Themistokles' navy bill was discussed nothing was known there of all the feverish activity attendant on the Persian preparations. Herodotos says as much with his emphatic statement that Themistokles on that occasion argued only with the war against Aigina. The way Herodotos expresses this fact, which evidently surprised him,[37] suggests that his informants on their part already reckoned with his disbelief and stressed this surprising aspect of the matter. Herodotos' emphasis is underlined by Plutarch in his rendering of the story; according to him Themistokles' had no need to brandish Darius and the Persians <at his fellow-citizens>, for they were far away and did not give them fright that they would come' (*Them.*4.2).

Modern students have almost unanimously[38] rejected this report and in any case judged it incomplete. Most have argued against the evidence—as for instance Busolt (1895: 649)[39]—that Themistokles *did* reckon with the greater danger that threatened from the side of the

[37] VII 141.1 reads as follows: 'He persuaded them to cease distributing the money, and to have ships built for the war—meaning the war with Aigina.' This presupposes that in Herodotos' time 'for the war' would naturally be understood as 'for the war with the Persians.'

[38] But see Will 1972: 102.

[39] He is followed by many e.g. Bury ^{3}1951: 264; Wilcken ^{9}1962: 139; Bengtson ^{3}1969: 167; Fine 1983: 292.

Persians. Others like Eduard Meyer (1939: 336, 337&n.) even went far beyond this and affirmed that the Persian preparations and in particular the digging of the Athos canal decided the Athenians. According to Meyer there was no need for Themistokles to mention the Persian threat, since everyone had known for ten years what was at stake (see above, p. 9 and n.4). However, if such were the whole story, one would have to explain not only why Herodotos' informants concealed it from him—and with emphasis too!-, but also why Plutarch—not an unconditional admirer of Herodotos—felt justified in reinforcing this emphasis. Plutarch's adding to the story implies that in what he read and heard about this occasion outside Herodotos Themistokles' ulterior (or principal?) motive was not mentioned at all. This is all the more striking as elsewhere Plutarch asserts that whereas the other Athenians thought that the Persian defeat at Marathon had ended the war Themistokles considered it the beginning of greater struggles (*Them.*3.5).[40] If then Herodotos' story—unsupplemented and unamended—is taken as an adequate if laconic report of what Themistokles said in defence of his bill, a crucial inference imposes itself, viz. that at that moment nothing was known of Persian preparations for an attack on Greece, neither of the digging of the Athos canal and the construction of the bridge of boats, nor certainly of the hectic activity in Asia Minor during Darius' last years. In the light of this inference the allegations of Herodotos' informants about the Persian preparations appear suspect indeed. Not only that the duration of this activity seems to be computed more in accordance with the colossal result than on the foundation of real data: it is as if all the ten years between Marathon and Salamis were allotted to the work to explain its magnitude and as if this timespan was then distributed over the available originators to the extent that they were supposed to have had their hands free. The natural assumption that king Darius must have cried revenge would confirm his involvement.

This view of the part played in 483 by the Persian 'threat' in Athenian politics gains in plausibility as soon as the number of

[40] This item in Themistokles' biography is not in my view of the same order as the concrete report of what he did in 483. It seems to be mere speculation about what Themistokles ought to have thought and not to be based on serious tradition. It is noteworthy for that matter that even in this fable the general public in Athens is supposed to have been heedless of the Persian danger.

triremes in Themistokles' building programme is examined in the light of an estimate of what the expected opponent, Aigina, would be able to muster. It is quite clear in my view (see 1993: 159f.) that his one hundred triremes were calculated to be a match for the combined navies of Aigina *and* its potential allies (who of course could be expected to build triremes in response to the Athenian example). Now in 480 these *poleis* finally brought together 137 triremes for the final battle (VIII 43). Like the Athenian 200 this figure must represent the sum of the original target number and that of the secondary all-out effort provoked by the disclosure of Xerxes' preparations.[41] We can see a trace of this last effort in the difference between the musters (other than Athenian) for Artemision and Salamis: at Artemision the muster was only 124 as against 151 at Salamis.[42] In some of the allied *poleis* building evidently was still going on at full pitch during the summer of 480. This suggests that Themistokles had good reason to think that his potential opponents would be able to build some 75 triremes and so remained on the safe side with his own 100. It may well have surprised him that they were able to build so many more without the benefit of such financial windfalls as had favoured Athens. Regarding the Persians, it is clear that as soon as he had made his calculation, Themistokles may well have judged that he had as little reason to worry about them as they about his navy. With a strength of 100 units the Athenian navy would be no match for the Persian, the less so since the next-door naval rivals had not the shadow of a quarrel with the Persians and Aigina had even given earth and water (VI 49.1).[43] The ongoing war with Aigina

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[41] The tradition about Themistokles' navy law is twofold: 200 units were the final yield of the building programme according to Herodotos as the text stands (VII 144.1) and after this text Justin (II 12.12); all the other sources specify 100 as the total. The figure of 200 in Herodotos' text was declared to have originated in a marginal gloss by no less a scholar than K.W. Krüger (1851: 25ff.). Krüger's argumentation—too long to repeat here—is exemplary) and the same idea was expressed (independently?) by C. Hude in his critical commentary: '[διηκόσιας] conieci'. I have no doubt that this deletion is right. On the relationship between the initial target of 100 ships and the final yield of 200 see Wallinga 1993: 148ff.

[42] Aigina mobilized 18 and 30 respectively, Sparta 10 and 16, Sikyon 12 and 15, Epidauros 8 and 10, Hermione 0 and 3. Corinth, Megara an Troizen 40, 20 and 5 for both campaigns (VIII 1; 43, 45 and 46.1).

[43] Aigina had given earth and water in 491 (VI 49.1). According to the almost universal explanation of this act this ought to mean that Aigina was now a subject of the Persian king. The conspicuous absence of the supposed overlord in the continuing warfare between Athens and his subject during the early eighties of the fifth

would seem to ensure that the triremes built now were indeed intended to be used to fight out the old feud.

If Themistokles took a Persian reaction into consideration, I think it most probable that he reasoned more or less on these lines. On the other hand one may well ask if such consideration has any probability. Athens had one big problem that was strictly localized, Aigina's active hostility. It also had been presented by fortune with the means to solve that problem. Themistokles saw how that solution could be organized. For him, like no doubt for most Athenians, Persia was the power that had tried to re-instal their former tyrant Hippias, as the likes of Hippias had done with Lygdamis of Naxos and Polykrates of Samos. They had failed and conspicuously failed to persevere. Hippias was dead now. Being ignorant of what moved the Persian king, why should Themistokles expect an attack in response to the building of a number of triremes that was far exceeded by the king's naval arm? If he knew what had happened to Thasos, and above all why it had happened, he still had little reason to suppose the cases comparable. Thasos was located in an area that had just been pacified by the Persians at the moment they made their demands. The surrender of their navy had an immediate strategic significance in Persian policies regarding Thrace. No comparable urgency existed regarding Athens' planned navy. In short, there was no obvious reason to take a reaction of the Persians into consideration, and no reason even to mention them at all. This would only have complicated the discussion to no purpose: in the absence of diplomatic relations nobody knew or could know to what extent the Persians would be interested.

The Persian reaction

As became instantaneously manifest, the assessment of the new situation by the Persians did not conform to such expectations. Evidently

century and in particular the total lack of even diplomatic support for Aigina is strong prima facie evidence that the relationship sealed by this act involved nothing like subjection and that the modern explanation is misguided. There certainly is no decisive argument in favour of it. Failure to consider this aspect is a weakness of Louis L. Orlin's study of Persian and Zoroastrian treaty-making (1976: 255–66). On the subject in general see A. Kuhrt (1988: 87–99). It would benefit from more, and far more critical, study.

the Greek arms race looked far more dangerous to them than the numerical analysis just offered would seem to justify. A secure basis of explanation for this totally different appraisal of course fails us for lack of real information about the premisses of Persian policy-making at this juncture, but it *is* possible to sketch the Persian predicament that was caused by the Athenian building programme itself and its possible repercussions. The most serious cause of Persian concern must have been the sudden availability of unprecedented financial resources, which made an active naval policy possible with actions on a considerable scale. Athens in other words threatened to become a power of a very different order compared with what it had been hitherto, different even more from rivals like Aigina, which for lack of comparable financial resources would not be able to make full use of a trireme fleet. The Persians can have had no doubt whatsoever that Athens could decide the conflict with Aigina once and for all. In itself this capacity may not have much disturbed them, but the question was what a victorious Athens, now become even more powerful and surrounded by very apprehensive, if not downright hostile, neighbours, would do next. To the mind of the Persians there must have been several precedents that made this problem very urgent indeed. The Athenians could follow the example of their own Miltiades (and behind him that of Miletos' Histiaios)[44] and try to get possession of the mines in the North-Aegean and on that basis begin to dominate all the Aegean islands, or they could take Polykrates as their model and found such a domination on contributions, initially gained by seizure, later perhaps regulated as tribute after the Persian model itself. Such prognostications of course need have had little to do with Athenian or Greek realities. The Peisistratid exiles may have been able to keep the satrap in Sardis informed about concrete decisions of the Athenian assembly such as Themistokles' navy law, but the Athens they had known had disappeared and they will have been at a loss to gauge the political mood and to predict the future political course of the new democracy. Probably however the Persians will have considered the hugely increased naval potential on their western flank enough threat to be thoroughly perturbed. Also the actual contacts they had had with Athens must have added to their apprehension. Athens after all had supported the rebellious

[44] See Wallinga 1984: 422ff. and 1993: 144ff.

Ionians, only for a very short time and ineffectively it is true, but with one hundred triremes instead of 20 to 70 much smaller galleys the new situation was indeed more threatening.

Still, in view of the traditional lack of consensus among the Greeks and especially of the long-standing enmity between Athens and its chief antagonist Aigina (and its potential Peloponnesian allies), the Persian reaction appears exorbitant and in any case will have been appraised as such by most Greeks (who did not dream of attacking the empire). This appraisal will be the chief reason why the Greeks came to think that the huge effort of the Persians was to be explained in a wholly different way, viz. by the overweening ambition of their kings to expand their realm. This perspective then made it impossible for them to see their own part in the escalation that led to Xerxes' great expedition.

CHAPTER TWO

THE NUMBERS OF XERXES' FLEET

Modern discussion of the strength of the fleets in the Great Persian War has been dominated by the reluctance of most students to accept the quasi-unanimous testimony of the ancients that the Persian fleet numbered a thousand and even twelve hundred odd triremes.[1] No doubt this reluctance has been fed above all by the realistic refusal to take seriously any of the tradition's figures for the Persian land army, but there certainly is reason enough to be suspicious as well of some of the figures for the navy as mentioned by Herodotos. One has only to think of his casual affirmation that the crews of the Persian triremes amounted to nearly a quarter of a million men (and those of the 3000 auxiliary vessels to about the same total again: VII 184) to begin cutting back on the numbers. Curiously enough, however, this has only been done regarding the ships, i.e. the triremes, not the rowers.[2] The discussion therefore has been—to say the least—one-sided; it has moreover been unsatisfactory for another reason: the figures for army and navy really are disparate, having been arrived at in very different ways, and the smaller ones for the ships are much less open to doubt.[3]

It goes without saying that no Greek had been able to actually count the rowers and Herodotos does not pretend that he had a witness who had. It was by pure calculation that he arrived at 241,400 for the crews of the triremes and 240,000 for those of the other ships, 200 men each for 1207 triremes and 80 each for 3000 auxiliary craft (VII 184.3).[4] Conversely the thousand or twelve hundred

[1] Hdt.VII 89: 1207; Lys.II 27: 1200; Isokr.IV 93, 97, 118: 1200; DS XI 3.7 (= Ephoros): more than 1200; Nepos, *Them.*2.5: 1200. Other figures are given by Aisch.*P.*341; Lys.II 32, 45: 1000; Plato, *Leg.*III 699b: 1000 and more; Isokr.XII 49: 1300; Ktesias, *Pers.*23: 1000.

[2] In a sense it has been done by Ed. Meyer who, however, made a fruitful analysis very difficult by throwing doubt on the figures for both ships and rowers (see below, n. 8).

[3] For the figures for the army see Hignett's analysis (1963: 350–355).

[4] Herodotos here assumes without argument that all the Persian triremes were

triremes are a different matter. It may be conceivable that Herodotos' informant(s) who made him believe in the enormous numbers of Xerxes' army (more than two million apart from even more numerous non-combatants: VII 185.3) also furnished him with the 1207 triremes. Still, this number in contrast with the other one was open to examination and verification. There were many Greeks who had seen all, or practically all, these ships at one or more of the several stations where they had been together on their way to Salamis: Kyme/Phokaia, Doriskos, Therme, Aphetai and Phaleron/Piraeus. At the first of these stations the Persian nauarchs had been ordered to assemble the ships:[5] undoubtedly the squadrons from Phoenicia, Egypt, Cyprus, Cilicia and the coastal areas of Asia Minor up to Aiolis congregated here to be gaped at by very many Kymaians and Phokaians. The members of the Greek crews of hundreds of Persian triremes may also be supposed to have feasted their eyes on the armada and Herodotos must have heard their various stories in every city that had belonged to Xerxes' realm. These stories naturally had not the status of official reports and they had, when he heard them, surely already been revised in the light of hindsight and theories on that basis. In any case, it is evident that the historian had some difficulty in combining them into a consistent tally, complications having been caused especially by the reports, or what passed as reports, about losses and replacements (to which I shall return). At best, the total he arrived at will be in the right order of magnitude.

It is not very likely that there were Athenians among Herodotos' better informants. Of course the Athenian combatants at Artemision had seen the Persian fleet in action but, as I shall argue, it is very much the question whether they saw *all* Xerxes' ships in the fights. Also, Athenians naturally must have crowded on to observation points on Salamis, to watch the arrival of the Persian fleet, but Phaleron and the harbours to the southeast of Piraeus, where the Persians were bound, were outside their range of vision (and Psyttaleia blocked

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as fully manned as Ameinias' ship (VIII 17). I do not profess to understand for what reason other than pure convenience he improbably ascribes (or accepts the ascription by his informants of) crews of 80 men to the auxiliary craft, nor why he makes them all pentekontors here and a mixture of different types at the occasion of the mustering at Doriskos (VII 97).

[5] DS XI 2.3. Kyme was also the base where the Persian ships wintered after the defeat of Salamis: Hdt.VIII 130.1.

their line of sight).[6] Also it is very doubtful if the manoeuvre of the Persians on the afternoon before the battle of Salamis (VIII 70) involved more than a fraction of their total strength (see below, p. 70ff., 75–6) and the chaotic scenes of the battle itself will not have facilitated counting. In fact, if Aischylos felt certain that the total strength of Xerxes' navy on the eve of the battle amounted to a thousand ships (*P*.341–2), it must be because he could base himself on reports like that of the Tenians (VIII 82) and of captives like Penthylos of Paphos and deserters like the Lemnians (VII 195, VIII 11), which no doubt had become generally known before the Persians arrived at Piraeus and will have been very important information for the Greek commanders.

Indeed, what Herodotos tells us about the tactical ideas of one of these commanders, Themistokles, agrees with Aischylos' assessment. Themistokles based his well-known tactical concept of not conceding sea-room to the Persians on the realization that the Greeks had fewer and heavier (i.e. slower) ships than their opponents (VIII 60α), that they would be up against a considerable numerical majority and would therefore have better chances in the narrows of Salamis Strait where, as he expected, the Persians could not (or less) profit from their numbers. The phrase Herodotos ascribes to him: 'joining battle with few <*not* 'fewer'!> ships against many' (VIII 60β) points to a proportion of 1:3 much rather than 1:2 and that proportion is practically the same as that of Aischylos' statement that at Salamis the Greek fleet numbered three hundred ships and the Persian fleet a thousand.[7] The latter very round figure I consider, even more than Herodotos' 1207, to be no more than in the right order of magnitude, rather than a scrupulously verified total, and to correspond with a real total that may have been anywhere upwards of 900

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[6] Psyttaleia was not a good observation post either, the Piraean Akte being in the way, and a very risky place to be with so many enemy triremes at close quarters.

[7] Aischylos' turn of expression (his messenger speaking to queen Atossa: *P*.336–343) is as follows: 'were numbers all, be convinced that the barbarians would have been victorious with their ships. For on the Greek side the whole number came to ten times thirty, and ten among these were set apart. Xerxes however, this I know for certain, had a thousand under his command, but the extremely fast ones were twice a hundred and seven. Such is the reckoning.' Concerning the much-discussed question whether the 'ten set apart' and the 'two hundred seven extremely fast ones' must be taken as included in the bigger figures or as additional to them Broadhead's argument (at *P*.339–40) that they are to be included is in my view irrefutable.

triremes. I emphasize that Aischylos' figures concern the battle of Salamis only (thus rightly How 1928: 364): he is not discussing the strength of Xerxes' naval power in general, as an historian would.

Notoriously, many scholars have demurred at these numbers and emended them to more modest, often far more modest, ones. On reflection, however, their deductions (which mostly involve the other big Persian fleets of 494 and 490), are not convincing. One often used argument is that the numbers of the tradition—600 and 1200-are stereotypes,[8] as if such 'stereotypes' were not a conspicuous feature of the Persian military organization with its ten thousands, thousands, hundreds and so on (see e.g. Barkworth 1993: 149–67). Moreover, a summary of the early history of the Persian navy will make clear that the figures in question are far from being stereotypes.

As I have demonstrated elsewhere, the creator of the Persian navy, Kambyses, had to reckon with enemy naval strength of about 300 ships.[9] The fleet he built, which operated against Egypt in 525 and according to Herodotos (III 19) wholly depended on Phoenicia, i.e. had hired Phoenician crews, must therefore have been of at least approximately the same strength in numbers. Darius then added another fleet in the Aegean 'depending' on Ionia, which presumably numbered 300 as well.[10] 600 ships, presumably not all triremes, were involved in the Skythian expedition (IV 87.1).[11] The number of these ships must have been adapted to the main task of this fleet, the formation of an improvised bridge (σχεδίη: IV 97.1) and we may assume

[8] So e.g. Ed. Meyer (1939: 288): '... die Zahl von 600 Schiffen die Herodot ihr <the Persian fleet at Lade> gibt, ist für die persischen Flotten stereotyp' and in a note 'Wenn die Zahlen der Schiffe in dem Krieg des Xerxes zu hoch sind, so sind es die für den ionischen Aufstand gegebenen erst recht'; Tarn (1908: 204): 'Now Herodotus has a stereotyped figure for a Persian fleet, 600'; Hammond (1988; 504) 'a conventional figure'. Even Briant speaks of Herodotos' figure of 1207 as 'un chiffre canonique, quasi mythique, qu' Hérodote a sans doute emprunté à Eschyle' (1996: 344). I prefer to think that the figure of 1207 was the result of a misapprehension of Aischylos' figures (see former note). It was clearly enshrined in the collective memory of the Athenians and pressed upon Herodotos by his Athenian informants.

[9] 140 Samian ships—100 pentekontors and 40 triremes—and at least a comparable number of Egyptian units: cf. Wallinga 1993: 117.

[10] The creation of this western fleet was not registered as such in the collective memory of the Ionians, which is in itself an indication that they had to do with it only indirectly, i.e. as hired rowers and *hyperesiai*, and perhaps as marines, not as commanding officers and administrators.

[11] See for the problem of the composition of this fleet I n.15.

that it was adequate for that purpose.[12] In the first years of the Ionian Revolt the eastern fleet was then expanded to 600 triremes after the Aegean fleet had been seized by the Ionian insurgents in 500–499,[13] no doubt because it had become known that the Ionians were building new ships in addition to the 300 they had seized (in the battle of Lade they had 353: VI 8) and because it could not be excluded that the fleets of other Greek states would join the Ionian forces. Finally,[14] in 490 this enlarged fleet was used in Datis' campaign which ended in the defeat of Marathon. What Herodotos has to tell about it is most revealing and gives us crucial clues for the correct evaluation of all the figures used in connection with the Persian navy.

Datis' fleet assembled in Cilicia as did the land forces and took on board both the cavalry and the infantry for the voyage to the Aegean (VI 95.2), that is to say that part of the triremes were used as transports. Conservative modern estimates of the size of Datis' army, i.e. some 25,000 men,[15] together with Thucydides' testimony that transport triremes had room for about 100 soldiers (VI 43; VII 42.1; see below p. 100) entail that 250 of Datis' triremes had in any case to be reserved for the troops (hence did not have full oarcrews as must have been true for the triremes in the Skythian campaign!), but this is not all. One of the king's orders was to reduce the people of Athens and Eretria (and the Naxians: VI 94.2 and 96) to slavery and to bring the slaves into the king's presence, for which transport capacity had to be provided on the voyage back. Also a number of triremes had to be ready for action, i.e. had to have full oar crews,[16] in case the fleet was attacked on the way, e.g. by the many long ships of the Naxians (V 30.4) and the Eretrian and Athenian fleets.

[12] On the analogy of the bridges over the Hellespont (VII 36.1) one could suppose the 600 ships to have been the 300 triremes of the Aegean fleet and 300 pentekontors, the two types being lumped together in the later traditions.

[13] This crucial event must be behind Herodotos' story about the arrest by the insurgents of the Ionian *strategoi* serving on the fleet mobilized by the Persian satrap Artaphrenes in connection with the Naxian affair (V 37.1: cf. Wallinga 1993: 132ff.).

[14] I pass over Mardonios' shipwrecked fleet of 492 (VI 44), for which the evidence is too imprecise.

[15] Cf. Lazenby 1993: 46 and Hammond 1988: 504; the numbers of Greek tradition are worthless.

[16] It is to be understood of course that in fully manned triremes no troops to speak of could be transported over long distances and that in the transport triremes the oarcrews were reduced: see below, p. 101ff. and Wallinga 1993: 171–72.

In view of all this it is clear that the strength of Datis' fleet, as specified by Herodotos, was carefully adapted to its commander's orders. Modern criticism like Hignett's 'that it is unlikely that the Persians took 600 warships against Athens and Eretria in 490; 200 would have been more than sufficient' (1963: 347–48)[17] is very ill-considered and superficial. This applies to his (and other students') condemnation of Herodotos' other fleets of 600 as well. At Lade the Persian commanders on being informed of the strength of the Ionian fleet took fright that their 600 would not enable them to defeat their opponents (VI 9.1). This, Hignett argues (*ib.*), 'strongly suggests that they had no superiority in numbers.' One may trust that the Persian commanders did not thus restrict their analysis to the Ionian fleet alone. It is true that in this case the Persian fleet in all probability had no troops on board and so the majority of the ships might have had large oar crews, but the Persians had every reason to reckon with more than the 353 Ionian triremes, for instance with the Naxian, Eretrian, Athenian and possibly other fleets.[18] What is just as important is that this fleet had its base far away in the East and even more that there were no friendly coasts in the neighbourhood of Lade. If ships were lost or seriously damaged on the way by bad weather, bad seamanship, or simply bad luck, replacing them could become urgent, especially in case crews survived shipwreck. Also, bringing along reserve ships, i.e. replacements, would enable commanders to adapt their numbers—or the degree of manning of their ships—to new situations. Herodotos for example remarks that Datis had Ionians and Aiolians with him when he finally turned to Eretria and Athens. No more is said about them, so we cannot be certain of their function,[19] but it is not far-fetched to conjecture that in any case they were transported in the triremes earmarked to carry the future slaves, and may indeed also have manned free rowing benches

[17] Repeating Ed. Meyer 1901: 325 and 326n. = 1939: 305–06. According to Hammond 'the Persians may well have taken 300 triremes', only reckoning with 'the combined fleets of Eretria, Athens, Megara, Corinth and possibly Aegina, which would in all have numbered over 200 triremes.' This fantasy founders upon Thucydides' short history of Greek seapower (above, p. 7).

[18] The Ionian insurgents were not the only ones to build ships, and even triremes, at this juncture. On the new navy of Thasos and the triremes of Miltiades, dynast of Chersonesos, see above, p. 16f. and Wallinga 1993: 142–44.

[19] They may well have been taken along primarily as hostages to ensure that their home cities would not start rebellions.

of undermanned triremes to bring the ships (further) up to fighting standard.

The composition of Xerxes' fleet must of course be summed up in the same terms. The king had to reckon not only with the fleet of the Greek allies that is known to us, which for all he knew could turn out to be 400 triremes strong,[20] but also with Korkyra's 60 triremes (VII 168.2), Syracuse's 200 (VII 158.4) and with other western fleets.[21] Also, it may have been foreseen that transport capacity would be needed for the many slaves the king no doubt expected to make in this case too. He will moreover surely have been informed about the dangers of the Aegean in the season of his campaign. Twelve years earlier his brother-in-law and military right-hand man Mardonios had himself lost three hundred ships (at least so the Greeks maintained: VI 44.3) and a canal had been dug through the promontory of Athos to prevent such a catastrophy happening again (VII 22), but this did not of course exclude other nasty meteorological surprises. The losses the fleet incurred in the storm off the Magnesian coast will not have been wholly unforeseen and surely will have been made good in other ways than was assumed by Herodotos' informants (Karystian, Andrian etc. ships filling the gaps: VIII 66). Last but not least, there is the psychological effect to be considered. A really large fleet would by its very size influence Greek morale. It is indeed evident that the Persians aimed for such an effect, witness Xerxes' treatment of the spies the Greek allies sent to Sardis in the spring of 480 (VII 145.2).[22] When the three men were caught, army commanders ordered their execution, but Xerxes put a stop to this and had them shown round the whole army, explaining that if they

[20] For the actual figures see Herodotos (VIII 1–2 and 42.2–48) and the tabulations of Beloch (1916: 64) and Burn (1962: 382–83). Herodotos gives the grand total as 380 triremes, which is more than the aggregate of the several *polis* navies. Since shipbuilding probably went on to the very last (see above, p. 28), some of the individual figures may include ships not finished in time.

[21] No other potential reinforcements from the West are mentioned by Herodotos, but that does not mean that the Persians did not have to reckon with them (it is significant that the reconnaissance commanded by Darius and guided by the Krotoniate doctor Demokedes included Southern Italy and was planned to go farther (III 136ff., espec. 137.4). One trireme, privately owned by a man from South-Italian Kroton and manned by compatriots staying in Greece, actually participated in the battle of Salamis (VIII 47; Paus.X 9.2).

[22] On political (or psychological) warfare on the part of the Persians see Burn 1962: 342f.

were killed the Greeks would not hear in time how immeasurable his power was, the realization of which as Xerxes expected would cause them to give up (VII 146.2–147.1).[23] A comparable reasoning may have helped to extend the number of triremes in the fleet far beyond the strength considered plausible by modern sceptics.

So far the tradition about the Karystian etc. replacements has been taken to mean that the fleets of the *poleis* in question fully replaced the Persian losses, just as the navies of the Persian subjects—Phoenician, Cilician etc.—are assumed to have made up Xerxes' armada. The refutation of this view (above, p. 12) puts Herodotos' assertion about the islanders in a very different light. It appears to signify that the Karystians and their fellow-sufferers were impressed as rowers (and possibly as *hyperesiai*), in other words that after the storm(s) Persian ships were sailed to Karystos and the islands by skeleton crews, which were supplemented there. These ships may so far have been reserves and had now to replace fully (or more fully) manned ships that were lost or damaged in the storm(s).

This procedure must have been routine for the Persian naval authorities. The majority of their ships had to be stationed in the two big naval bases in Cilicia (*Aleion Pedion*) and in the border region between Ionia and Aiolis (Kyme-Phokaia). There they were stored in peacetime under strong guard[24] and from there they were mobilized, as is apparent in the mobilizations of 490 (VI 95.1) and e.g. 460/59 (DS XI 77.1), 399 and 386 (id. XIV 39.4 and XV 2.2). It is very probable, though not documented, that ships were also built and kept in repair there, as Herodotos suggests that they were in (some of) the coastal cities (VI 48.2, VII 1.2).

[23] According to Macan (at VII 146 p. 198) the spies would not have seen 'the whole forces of the king . . . but only one of the *corps d'armée*' because Herodotos <wrongly in M.'s view> 'assumes here . . . that the whole forces of the king were massed at Sardes'. This ignores that the spies were given a guided tour and of course robs the story of its point. The other extreme, and surely even more misguided, is Busolt's comment (1895: 657): 'Über die Stärke des bei Sardeis versammelten Heeres erhielten daher die Eidgenossen *sichere* Nachrichten' (my emphasis). I would rather believe that Herodotos' inflated figures for Xerxes' army were the result of Persian manipulation of the three spies, than follow either Macan or Busolt.

[24] This is only documented in the case of Cilicia where according to Herodotos there was a cavalry garrison which cost no less than 140 talents each year (III 90.3). That nothing of the sort is known about Kyme must be because this base did not survive the Great War and therefore did no longer count as such when Herodotos started collecting his material.

As soon, therefore, as a naval mobilization was ordered, either the crews were collected and brought to the bases, or (perhaps more probably) ships were brought to assembly points by skeleton crews, the size of which depended on the distance to be covered or the difficulty of the route, to be (more fully) manned there.[25] Also, if for whatever reason rowers were hard to come by, commanders will have tried to find them on the way to the field of operations, as was perhaps done by Datis (see above p. 37) and later by the Athenian navy (e.g. Xen.*Hell.* VI 2.11ff.) and very much later by the Venetians.[26] The ships of Xerxes' fleet that had assembled in Phokaia-Kyme will in the same manner have picked up rowers on the way in the more northern parts of Aiolis and in the Hellespontine region (VII 95.1,2) and further along the Thracian coast and from the islands there (VII 185.1).

Now if the Persian triremes were not all, and in any case initially not at all, fully manned and the misleading suggestion of Herodotos' informants—that the Persian subjects furnished ships—is ignored, the traditions Herodotos collected about the numbers and the replacement of losses become far more tractable, if not exactly easy to interpret. Hignett's self-assured criticism of the statement that the Greeks of Thrace, Thasos and Samothrake joined Xerxes with 120 triremes (VII 185.1) as 'an absurd overestimate' (1963: 346)[27] definitely loses persuasiveness if in reality these Greeks only manned so many royal ships with perhaps as few as 7,200 oarsmen (120 x *c.*60).[28] The same applies to the compensatory contribution made to Xerxes' battered fleet by the men of Karystos, Andros, Tenos and all the rest of the islands (VIII 66.2).[29]

There is one striking feature in Herodotos' report of the advance of Xerxes' fleet that strongly supports the view here defended regarding

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[25] Xenophon has preserved an eye-witness impression of such a mobilization observed in Sidon by a chance visitor (*Hell.* III 4.1).

[26] See F.C. Lane 1973: e.g. 168 and 366f. on the Venetian practice of hiring oarsmen in Dalmatia and Crete.

[27] Hignett of course assumes that his 120 triremes were fully manned and so carried 24,000 men.

[28] 60 rowers may be considered a minimum/skeleton crew for a trireme. Such a ship could then be called *monokrotos*: cf. Xenophon *Hell.* II 1.28 and *SSAW* 280 n.44. Triremes converted into horse-transports were equipped with 60 oars in the Athenian navy (*GOS* 248).

[29] Note that Hignett in his criticism of this passage suppresses 'all the rest of the islands'.

the organization of the Persian navy. This is the fact that the Ionian participants in Xerxes' great expedition evidently had nothing to report about the damage suffered by 'their' navies in the great storm off Cape Sepias.[30] Less striking, but still odd is that they (and other Greeks) had so little to tell about their part in the fighting, tales such as would imply, however indirectly, that they had their own ships. Concerning Artemision the only thing we hear is that there were Ionians who wished the Greek allies well and were anxious about their chances (VIII 10.2), a not improbable attitude which they had good reason to make the most of afterwards. As to Salamis, Herodotos gives a rough idea of the Ionian station in the Persian battle order, assures us that only a few avoided doing their duty to the king and that he could name many Ionian trierarchs who took Hellenic ships, but then only names two Samians who were among the *orosangai* (benefactors of the king) and were conspicuously remunerated, without however specifying their successes (VIII 85). Obviously, this latter report can hardly be taken on trust. The remuneration of the Samians was no doubt reported to Herodotos in Samos and was generally known there, but who told him about the Ionian truants and, even more unexpectedly, about the successes of the trierarchs? That no more than a few Ionians played truant will have been Athenian tradition, if not slander, but even on the traditional view of the Persian naval organization can we believe Ionian trierarchs being made, let alone making themselves, responsible for the taking of ships when this really had been the work of Persian marines?[31] In either case it can hardly be expected that the Ionians prided themselves on such achievements and the use of the term *trierarchos* definitely suggests that in this passage Herodotos is following Athenian or allied informants who projected the terminology they were familiar with into their references to the Persian organization, as perhaps they did when they talked about the coastal subjects furnishing ships to the king.[32] The names of the 'trierarchs' Herodotos so carefully withholds he may have picked up in Ionia, perhaps specifically in

[30] Even if they got off scot-free we should expect to hear the echo of their sighs of relief, had the ships really been theirs.

[31] The sinking of ships would be a different matter, but of that there is no sign.

[32] I would therefore consider it possible that the exceptional merits of the *orosangai* had nothing to do with the fighting, but that they earned their exceptional rewards by other work, e.g. recruiting and selecting the crews of the 'Ionian' ships.

Samos as Macan thought (at VIII 85, p. 492)[33]. His lack of openness about the names may well have been conditioned by what Jacoby called the apologetical zeal he shows where Samos and Samians are concerned (1956: 14, col. 220), which conceivably extended to other Ionians as well. However, what looks like an effort to disculpate the Ionians clearly was offset by the insistence of the Athenian and other allied Greek traditions that, to put it negatively, there was no noticeable difference between Ionians and Phoenicians as regards zeal in the fighting. And this is indeed to be expected if the Persian navy was organized as here proposed. With 30 Iranian marines on board sabotage must have been well-nigh impossible, as is perhaps demonstrated by the rareness of cases of 'Ionian' crews succeeding in bringing their ships over to the Greek side.

To return to the numbers of Xerxes' fleet, the difficulties that have been seen in Herodotos' statements on this topic are considerably reduced in this perspective. The very sceptical Hignett considered 600 triremes—fully manned of course, i.e. with 120,000 men on board on Herodotos' reckoning—a reasonable estimate for its strength at the beginning of the invasion.[34] But if we assume that all or most of the ships had only skeleton crews to begin with, i.e. 50 or 60 rowers, few marines (if any)[35] and an *hyperesia*, the total of the crews

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[33] Macan's assertion that Herodotos' τριηράρχων 'is used without any suggestion of Attic institutes' nicely turns things on their head.

[34] Cf. Briant (1996: 543–44) who mentions the same figure and puts the trireme crews at no less than 230 men (30 Iranian marines included)! It is not entirely clear whether he applies this figure to the fleet at Salamis or to that at Doriskos. For the Iranians see next note. 600 is also the number allowed by O. Murray (1980: 270).

[35] I find it impossible to believe that the Persian ships manned by Greeks had all full complements of epichoric marines. It is true that Herodotos states that 30 Iranian soldiers—Persians, Medes and Sakai—served as marines on *all* the ships (VII 96.1) and later adds that these thirty were additional to the epichoric marines (VII 184.2); it is also true that he records acts of valour on the part of Egyptian soldiers (στρατιῶται: VIII 17) and of Samothrakian marines (VIII 90.2), but these are uncommon cases, as uncommon as the 'Ionian' crews that were able to defect with their ships (which may therefore be supposed not to have had Iranians on board). For obvious reasons the latter situation must have been exceptional on Greek ships and this will explain, as I said, why there were so few cases of defection. Apart from these obvious reasons practical considerations may have decided the Persian command not to combine epichoric and Iranian marines e.g. to avoid communication problems. In view of the practice of the (later) Athenian navy (14 marines, i.e. ten hoplites and four archers: cf. *GOS* 263ff.) we are justified to consider thirty men ample.

need not have been more than *c.*75000 men for the *c.*1200 ships of the tradition, large enough but not such an exorbitant proposition as Hignett's.[36] I see therefore no reason to doubt that the fleet in Xerxes' expedition was meant to have this size and in practice came very close to it when the ships were counted in Doriskos (VII 89.1), an official count that may have confirmed the impressions and privately undertaken counts of Greek witnesses. The number of 1200 was then reduced by losses in the storm and in the fights at Artemision to Aischylos' '1000' on the eve of the battle of Salamis (i.e. a number above 900 that could be readily rounded up to that amount, also a figure we have no good reason to call in question in a radical way.

The losses of the Persians before their arrival at Phaleron thus amounted to between 200 and 300 triremes, up to a quarter of their original strength. This of course is definitely not what Herodotos' informants told him. Their story was that according to the lowest estimate the Persians lost 400 triremes (plus many auxiliary ships: VII 188–90) in the storm off the Magnesian coast; that there followed the loss of 200 by storm in the Hollows of Euboia (VIII 13) and then the losses, only partly specified, in the three fights at Artemision,[37] altogether up to some 700(?) ships. Herodotos, to be sure, does not exactly corroborate his report on the Persian losses by drawing attention to other traditions which are difficult to square with it. Apart from the motivation he gives for Themistokles' tactical plan for the decisive battle (above p. 34) there is his account of the Greek reaction to the arrival of the Persian fleet at Aphetai, when the Greeks are said to have panicked at the sight of so many ships beached there and of troops swarming on the beach, all this

[36] Just as exorbitant and even more arbitrary is the view of another sceptic, Eduard Meyer, who consistently reduced Herodotos' figures for all the Persian fleets from Lade to Salamis. Meyer also asserted that the Persian ships were not all triremes (the crews of his triremes he put at 150 rowers for no reason at all!) and even that Datis' fleet mainly consisted of pentekontors rowed by his Iranian troops! For the fleet of 480 this double-edged scepticism resulted in the following calculation: initial strength 600–800 ships; at Salamis 400–500, not all triremes, Aischylos' total of 1000 including transport ships; total of initial crews 150,000 to 200,000 (1939: 288, 306, 338n.1, 353–54; cf. Wallinga 1993: 183–84).

[37] In the first fight the Greeks took 30 enemy ships; in the second they destroyed Cilician ships (no figure); in the third there were heavy losses on both sides in ships destroyed, most by far on the Persian side, but again no figures: VIII 11.2, 14.2 and 16.3.

being contrary to their expectations (VIII 4). The problem therefore is the coexistence in the Greek collective memory of such bewilderingly conflicting traditions. So far sudents, as we have seen, have tried to solve this problem by eliminating the big numbers, a solution now appearing to be less obvious than they supposed. There is indeed no reason whatsoever for such radical surgery, for the bewilderment betrayed by the traditions is only to be expected.

For most European Greeks the trireme was an entirely new weapon in 480. The *poleis* had built them in unprecedented[38] numbers, mostly very recently, for different reasons which we—ignoring ancient and modern speculation about forebodings of a Persian threat (see above, p. 26ff.)—can follow back to internal Greek differences and loyalties. However, even if they now had their own brand-new trireme fleets, that is not to say that from this moment on the Greeks were familiar with all aspects of the use and management of (relatively) large fleets of the new type, let alone the problems involved in operations with a really large fleet at a great distance from home bases, like that of Xerxes' navy. It is therefore more than probable if not certain that the conclusions they based on certain observations could be wide of the mark. If for instance the Persian ships taking part in the fights at Artemision, especially the last one, never amounted to the alarmingly large number they had seen or thought they had seen when the fleet arrived at Aphetai, some, perhaps all, of them will have explained this by assuming losses. What really will have been a large part of the explanation is that the Persian crews were concentrated on fewer, more fully-manned and therefore more battleworthy ships.

Initially such mistaken conclusions of eyewitnesses may not have been very specific as to numbers, but they would become so when edited by (armchair) strategists who had all the numerical data, fancy or not, and tried to combine them into a consistent whole, if need be by conjecture. A relatively innocent example may be the 'correction' of the vague total of 'about 1200 ships' for Xerxes' fleet to exactly 1207 by adding up the two figures of Aischylos' *Persae* 341–43 (above at n.7). The losses of 400 ships mentioned by Herodotos will

[38] Unprecedented in the double sense that for most of them the trireme not only was a new type of ship, but that, with the exception of Corinth, none of them had ever possessed so many naval ships of their own (see above, p. 7f.).

have been the product of calculations that are impossible for us to reproduce. Clearly Herodotos too was unable to combine the conflicting assertions of his informants in one coherent system and simply noted them down, to his great merit.

My conclusion is that the Persians started out from Doriskos with *c.*1200 ships. For that number there were many Greek ('Ionian') witnesses. The storm off the Magnesian coast then caused many ships to be lost and many others to be damaged, exact figures for which were known to few people, primarily Persian officers, because the fleet had been scattered over a wide area and ships that were seriously but not fatally damaged needed time to rejoin the fleet. On arriving at Aphetai the remainder was readied for battle by concentrating the crews, a process which will have taken time because rowers and sailors had to rest after the storm and minor damage to the ships had to be repaired. Hence the suggestion of unpreparedness on the part of the Persians and of only partial involvement of their ships in Herodotos' report of the first two fights (VIII 10–11 and 14.2). The Persians then did muster an adequate force for the last fight, though even that clearly was not a crushing majority.

In the light of these considerations the notion that the Persians did not bring more than 600 triremes (irrespective of the degree of manning) becomes positively unattractive. To underbid the maximum naval potential of the Greeks (the West included) must have seemed absolutely irresponsible to the Persian command, and is indeed incompatible with the massive set-up of the expedition as a whole. Conversely, the route chosen for the fleet involving particular risks adequately explains the important material reserves which in my opinion are implied in the figures of the tradition.

As for the calculations of the Greeks, what they experienced in the actions at Artemision, as distinguished from what they saw of the Persian fleet as it lay moored at Aphetai, will have served them to supplement and eventually to adjust the conclusions they had based on their first observations. Their initial estimate of the strength of Xerxes' fleet less the number of ships actually taking part in the battle thus resulted in assessments of the Persian losses. In that process interpretations and re-interpretations of the movements of Persian ships—seen, reported by outsiders[39] or suspected—will have influenced

[39] Such as for instance the intelligence said to have been furnished by the diver

the conclusions reached. It is clear that in their calculations the Greeks had the serious difficulty in not having information about the precise orders of the Persian commanders. For the decision of how many triremes to prepare for battle it made all the difference whether the king had ordered the annihilation of the Greek fleet there and then, or set his men a more limited target or targets, for instance to make sure of the entry to the Malian Gulf in case troops would have to be landed at the back of Thermopylai and/or, as Herodotos perhaps implies (VIII 6.2), to merely ensure that no Greek ships would make their escape, in other words to drive them on in the direction they were taking themselves. To these crucial, and entirely neglected, questions I shall turn later.

Skyllias of Skione that 200 Persian ships had been sent around Skiathos and Euboia to cut off the Greek retreat at the Euripos (VIII 8.3). This may well have been based on an honest misunderstanding, the ships being bound in reality for the Sporades to search for rowers. It goes without saying that Skyllias had no authentic information regarding the orders of the ships that were sent round outside Skiathos (VIII 7.1). That the Greeks took his story so seriously is of course no argument in favour of its veracity, as is assumed by Bowen (1998: 361). In this case I fully share Hignett's scepticism (cf. 1963: 386ff. and see below, p. 94 and n.29).

CHAPTER THREE

THE TEXT OF AISCHYLOS' *PERSIANS* 366–68 AND THE PERSIAN BATTLE ORDER

In his translation of Aischylos *Persians*[1] Hermann Köchly rendered lines 364 to 368 as follows:

'Sobald der Sonne Strahl nicht mehr das Erdenrund
365 Erleucht und Dunkel überzieh' den Himmelsraum,
Soll sich der Schiffe Masse in drei Treffen reih'n,
368 Die andern aber um des Aias' Insel rings
367 Jedwede Ausfahrt hüten, jeden Meerespfad'.[2]

Apparently, Köchly nowhere stated his reasons for transposing the lines: his translation has had to speak for itself. Even so, he was followed by Murray[3] and Page in their Oxford texts and two writers of commentaries, H.J. Rose and H.D. Broadhead, have given attention to the transposition in the end to reject it. Most editors,[4] however, do not even mention it, nor does Dawe in his *Repertory of conjectures on Aeschylus* (1965). The only scholar I know to defend it explicitly is Wecklein (1892).

The matter is important. Aischylos describes the starting position of Xerxes' fleet in the battle of Salamis and the positioning of the ships according to the two readings is very different, that of the reading of the manuscripts being at first sight very difficult to square with intelligible planning on the part of the Persians. To accept this

[1] *Aeschylus, Die Perser*. Verdeutscht und ergänzt von H. Köchly. Herausgegeben von Karl Bartsch. Heidelberg 1880. In this translation the tragedy was performed in 1876 in Heidelberg.

[2] The manuscripts have the following text for ll.366–68:
'τάξαι νεῶν στῖφος μὲν ἐν στοίχοις τρισίν
ἔκπλους φυλάσσειν καὶ πόρους ἁλιρρόθους,
ἄλλας δὲ κύκλῳ νῆσον Αἴαντος πέριξ',
translated by H.W. Smyth as follows:
'they should bring up in serried order the main body of the fleet disposed in triple line, to bar the exits and the sounding straits, and station other ships in a circle around the island of Ajax.'

[3] Surprisingly, Morrison ascribes the transmitted text to Murray (*GOS* p. 156).

[4] E.g. Italie, Mazon, De Romilly and her normaliens, Roussel, Smyth, Hall. Groeneboom only mentions it in his critical apparatus.

reading is in fact to disparage the Persian command. The lines in question are part of Xerxes' last instructions to his captains in the night before the battle, the Persian fleet having already been drawn up in battle order the preceding afternoon (Hdt. VIII 70.1). These instructions (on which see p. 70f.) were provoked by Themistokles' message that the Greeks would not stand their ground, but under cover of darkness would try to save their lives by fleeing in all directions.[5] The king thereupon ordered the fleet to take up new[6] positions: according to the text of the manuscripts 'the main body in three files to guard the exits and the straits', others in a circle 'around the island of Aias', that is to say that *all* the Persian ships were engaged in preventing the Greek escape. Köchly, on the other hand, distinguishes ships blocking the exits from a main body with a specific organization not obviously adapted to blocking. The orders of this main body are not made explicit, but should be implied in the choice of terms.

In defending Köchly's view Wecklein advances three arguments: first, that in the transmitted text 'das Stilgefühl nach ἄλλας δὲ κτλ. eine nähere Angabe <verlangt>, so dass man an den Ausfall eines Verses denken könnte'; second, that the adjunct 'ἐν στοίχοις τρισίν' stamps the στῖφος νεῶν as a battle order and that therefore the task of ἔκπλους φυλάσσειν is surprising; third, that with Köchly's text 'den detachierten Schiffen <= ἄλλας δὲ> erst recht die Aufgabe zu<fällt>, die Ausfahrt aus der Bai von Eleusis an der nordwestlichen Ecke der Insel zu bewachen' (pp. 26–27). These are strong arguments, although in the third Aischylos' double plural is unaccountably reduced to a singular and though the majority of the editors (Murray and Page excepted?) have not shared Wecklein's stylistic fastidiousness. Wecklein's second argument on the other hand would seem to be very strong indeed: for a στῖφος the task of guarding escape routes is more than surprising,[7] especially since other ships are stationed

[5] Aisch. *P.*359–60: (ἔλεξε . . . ὡς . . .) ἄλλος ἄλλοσε δρασμῷ κρυφαίῳ βίοτον ἐκσωσοίατο; Hdt.VIII 75.2: δρῆσμον βουλεύονται.

[6] I assume that for Aischylos as for Herodotos (VIII 70: see below, p. 67 n.1) the Persians were already drawn up in battle order before Themistokles sent his messenger, and that this view was also Köchly's.

[7] I have found no parallel for the use of this term in such a defensive or screening context. Aischylos employs it once more with the sense of 'an army marching in tight order' (in fact Xerxes' infantry at the beginning of the campaign: *P.*20). In Herodotos the word is used twice with the sense of 'battle order' (IX 57.1 and 70.4).

'around the island' and thereby already covering the escape routes available.

Conversely Rose defends the reading of the manuscripts, basing himself on what he sees as the agreement between Aischylos (transmitted text) and Herodotos. In his view Aischylos evokes the manoeuvre described by Herodotos (VIII 76.1), where the western wing of the Persians—according to Rose Aischylos' 'other ships'—is advancing to Salamis with an enveloping movement,[8] while two other squadrons—Aischylos' *stiphos*—are moving to positions around Keos and Kynosura. Herodotos stresses that this was done to keep the Greeks from fleeing. Hence, Rose concluded, there was 'no need of Köchly's inversion of <lines> 367 and 368, for Xerxes' orders were not simply that a squadron should sail around the island to block all exits from the bay of Salamis in a southerly direction, but that *all his ships* <my emphasis> should take station to stop any attempt at getting out at either end.'[9]

In Rose's estimate, in other words, both Aischylos and Herodotos characterize the entire Persian disposition as defensive, not to say passive: the Persians are all waiting for the Greeks to start their flight. This estimate, however, violently conflicts with Herodotos' account of the preliminaries and the actual opening of the battle (VIII 70–76 and 83.2), where the Persians clearly have the initiative and specifically begin the fighting. Here, therefore, we have a real crux and it is clear that Köchly's transposition makes all the difference and not by chance. The question is, then, where this leaves the agreement between poet and historian as construed by Rose, or in other words in how far Herodotos' report is ambiguous. Is his western wing really no more than part of the forces guarding the exits, or is it an attacking battle order, identical with Köchly's *stiphos*?

Herodotos' words are to the effect that the western wing moved towards Salamis in a circling movement,[10] while others went to posi-

[8] Rose in other words makes Herodotos' κυκλούμενοι and Aischylos' κύκλῳ πέριξ exactly equivalent.

[9] This seems to be Broadhead's opinion also (who does not cite Rose): 'it is highly probable that the "other" ships, like the νεῶν στῖφος, were to take up some station or stations in fulfilment of the one design (1960: 329; of course 'the one design' begs the question). Rose adds, interestingly, that 'with Köchly's reading we get a much easier construction, στῖφος μὲν τάξαι . . . ἄλλας δὲ . . . φράξαι.' This curious epigram seems to repeat Wecklein's first argument.

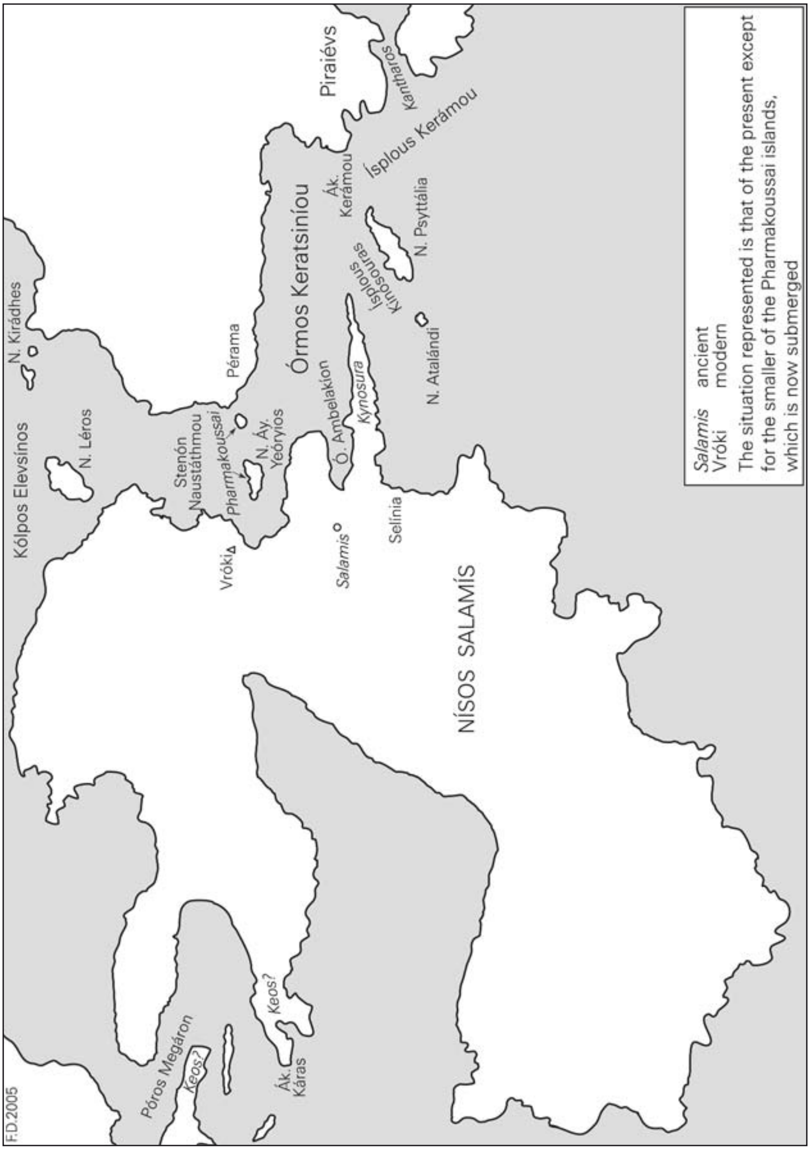
[10] VIII 76.1: κυκλούμενοι πρὸς τὴν Σαλαμῖνα to be understood as 'moving round towards Salamis' (cf. Adolf Wilhelm (1929: 25).

tions round Keos and Kynosura. *Pace* Rose, it seems evident that of these two contingents the second is most likely to have had the task described by Aischylos as 'to bar the exits and the straits' (*P.*367), Aischylos' plural fitting Herodotos' double goal. Kynosura must here stand for the eastern exit as seen from Salamis, Keos for the western one. These toponyms to be sure are not mentioned by any other source for this area: even so they are undeniably connected with Salamis and can indeed be attached to recognizable parts of the island (see Maps I and II). Kynosura—'dog's tail'—is no doubt the narrow, hilly tongue of land which projects from Salamis to the east; its eastern tip has in recent times been renamed Ákra Kinósoura (formerly Varvári). The obvious and in my view only convincingly arguable identification of Keos with a point on what is now Póros Megáron, the channel between the north-western extremity of Salamis island and the mainland north-westward of it, was proposed long ago by F.K.H. Kruse (1826: 304 n.1753), but has been totally ignored in later studies. Herodotos' Keos has been changed by Wilhelm (1929: 29) to Kéramos, the modern name of the cape on the coast of Attika due east of Cape Kinósoura, now indeed Ákra Kéos. It has also been identified with Zea, the middlemost harbour of Piraeus, most recently by Burn.[11]

There is little to be said for these proposals. Burn admits that his suggestion is 'a long shot,' but in reality it is a bad miss, quite apart from its intrinsic improbability, since Zea harbour must have been one of the places from where the Persian contingents were directed towards Keos and Kynosura, and in any case was not a place where the Persians would have stationed ships in connection with their plan of attack! Wilhelm's Kéramos is little better as it presupposes the Persians' total disregard of the Póros Megáron and proposes the blocking of a strait (the one east of Psyttaleia, mod. Ísplous Kerámou) which would in any case be out of reach for the Greeks once the battle had begun.[12] *If*, as Wilhelm assumed, Herodotos' Keos must

[11] 'It is an odd fact that the well-known Keos <the island east of Sounion> has become Zea or Dziá in modern Greek' (1962: 472). It would be odder if the modern change of Keos to Zea/Dziá repeated an identical change of 2500 years ago.

[12] The Persian attackers, proceeding in the direction of the Greek base near Salamis city, expected to take up all the sea room north of Psyttaleia and thus exclude the Greeks from the channel east of the island. Therefore the idea that a special squadron was sent to close this channel seems illogical indeed. Something like the situation just sketched is at the base of Herodotos' description of the Persian



Map I. Salamis and the surrounding waters: ancient and modern toponyms

Map II. The tactical disposition at the start of the battle

be found in a modern toponym sharing a letter with it, modern Ákra Káras, the tail end of Salamis on the Póros Megáron (see map I), which exactly corresponds with Kynosura, is as obvious a candidate as Ákra Kerámou and not without strategic sense.

Herodotos' two squadrons thus being plausibly connected with Aischylos' ships which were to bar the exits and the straits, the equation of the former's western wing with the latter's *stiphos* merits serious consideration. There is indeed good reason to accept it. On this western wing were stationed the Phoenician ships (VIII 85.1), which in the morning attacked the Greeks as soon as they were under weigh. Ships with such an instruction will not also have had the task to block the exits, least of all the superior Phoenician ships.

There can be no doubt in my view that Köchly's transposition results in a text that is very much superior to that of the manuscripts in that it makes room for the *stiphos* to be the true attacking force implied in the term.[13] With this reading in other words Aischylos' description of the Persian preparations does not leave out this all-important contingent. In this perspective, moreover, Herodotos also is freed from the odium of describing the Persian disposition exclusively in terms of penning up the enemy and waiting for him to make a move. For if one thing is certain, it is that he does not represent the Persians as doing this: they did attack at daybreak as they had planned (VIII 83 and 70.2). They must therefore have fielded an attacking force and it would be a very strange omission if our chief sources did not explicitly refer to it.[14]

Interestingly, the excellence of Köchly's emendation is demonstrated indirectly by Lazenby (1988; 1993: 174ff.), whose treatment

position just before the attack, when the Persian ships were spread over the whole fairway down to Munichia (VIII 76.1).

[13] In rejecting it Broadhead (1960: 329) alleges that it makes *P.*368 'refer to the blocking of the Megarian channel, since both portions of the fleet were to be placed where they would ἔκπλους φυλάσσειν καὶ πόρους ἁλιρρόθους.' This preposterous idea is entirely due to his failure to think through Köchly's proposal which assigns the *stiphos* and the 'other ships' *different* tasks.

[14] The absurdity of the other view is nowhere starker exposed than in Broadhead's comment (1960: 328) that Herodotos 'is giving in greater detail the movement mentioned in *Persae* 366–7: "the main Persian fleet (some thousand ships?), was to guard the (eastern) exits and the sea-routes." As Broadhead (rightly) puts the total Persian strength in the battle at a thousand ships (see above II n.7), this means that there were no ships at all left to attack!

of the problems involved is as disappointing as Rose's in spite of a number of penetrating insights. Although he recognizes that the *stiphos* is 'the main body of ships', the tyranny of the received text forces him to take it as a 'single great squadron formed in three lines abreast <!> or ahead and guarding more than one channel' to be contrasted with one <!> other broad division (the ἄλλας of *P.*368). This arrangement is then identified with Herodotos' supposed two divisions, a western wing and the ships assigned to the waters of Keos and Kynosura and the implied unity of this second division made plausible by placing Keos and Kynosura in the one area between Cape Kinósoura and Piraeus (Zea!). He further rejects what he calls himself 'the obvious possibility' that Aischylos' ἄλλας refer to Diodoros' Egyptian squadron because Herodotos 'certainly knows nothing about it' (as if it were so certain what Herodotos means by Keos!) and, rightly, a second possibility—'the natural interpretation'<??>—that the 'other ships' were sent to form a cordon round the coast of Salamis, to embrace 'another alternative' that the 'other ships' are Herodotos' western wing and that τάξαι . . . ἄλλας κύκλῳ νῆσον Αἴαντος πέριξ is equivalent to the latter's κυκλούμενοι πρὸς τὴν Σαλαμῖνα, although 'this is not the natural way to take the line.'

Correctly judging that 'both poet and historian are contrasting the passive role of the ships guarding the exits . . . with the active role of the ships assigned to attack the Greeks at their base *on the island of Salamis*' (Lazenby's emphasis), he does not see that the *stiphos* fits only the second role and that Köchly's transposition gives *P.*368 the 'glaringly obvious meaning'[15] he misses in the received text.

[15] Quotations from Lazenby 1988: 171–77. Amazingly, in his book he defends his rejection of Köchly's emendation by calling it 'not necessary', as if it made no difference (1993: 174).

CHAPTER FOUR

THE BATTLEFIELD OF SALAMIS AND ITS TACTICAL POSSIBILITIES

In considering what tactical opportunities there were for Persians and Greeks in the waters of Salamis I feel justified in restricting myself to what may legitimately be called 'narrow': it is in the Narrows—*stenon*, *stenochoria*—that the battle is consistently located in our sources (e.g. Hdt.VIII 60ß; DS XI 15.4).[1] The Narrows along the northeast side of Salamis have two parts, each with its modern name: first the Órmos Keratsiníou (also called Salamis Strait), which stretches due east-west between the coast of Attika immediately northwest of Piraeus in the east, and the Órmos Ambelakíon (the harbour of the ancient city of Salamis) and the adjacent island now called Áyios Yeóryios at the western end; and second, the aptly named Stenón Naustáthmou, which continues north from Áyios Yeóryios for well over two nautical miles (*c.*4000m) and runs into the Kólpos Eleusínos/Eleusis Bay (Map I).

The ancient topography of this composite strait has been much clarified in recent years by the work of W.K. Pritchett and P.W. Wallace[2] so that there is now a solid basis for the study of the battle. By good fortune an exceptionally instructive large-scale map is available in the British 1:12,000 Admiralty Chart no. 894,[3] so that most of the ancient topographical data are precisely recognizable or can be placed in a recognizable context. No less importantly, the situation under water is represented in sufficient detail on this chart to make it possible to form reasonable estimates about where ancient triremes could and could not move, and the battle consequently

[1] Plutarch implies as much: *Them.*12.3. It is just possible that Aischylos means the same in *P.*413 (Cf. Groeneboom's comment), but I do not believe it. Broadhead wrongly takes τὸ στενόν as 'the narrow part of Salamis channel' (see below, IX n. 12).

[2] Pritchett: 1959: 251–262 (esp. 255–57) and 1965: 94–102 (esp. 99ff.); Wallace: 1969: 293–303.

[3] There is a Greek Admiralty chart on scale 1:10,000, which was used by Pritchett (1965: 97–98) but was not available to me.

could take place, and at any rate be planned. Further specification of the battlefield is possible because there are elements in the tradition, not so far recognized as such, which conform to features of Salamis Strait in a way hardly to be explained as coincidental. All this leads to a far more precise idea of what was tactically possible than has been realized and so to a more secure basis for the reconstruction of the battle.

The Persian battle-order referred to by Aischylos as *stiphos* and by Herodotos as the western wing was organized according to the former in three *stoichoi*/files (*P.*366). This specification, as Wecklein saw, ought to have bothered those who make this contingent block the exits and the straits for with such an task a formation in three files of ships, one behind the other, is inappropriate, not to say absurd[4]. Such an arrangement must have another function. It is, to be sure, only here that a formation of ships is described in these specific terms, but there is a clear parallel, worded more prosaically, in Thucydides' account of an episode of the Peloponnesian war. In 429 a fleet of 77 Peloponnesian ships tried to drive the Athenians from their stronghold Naupaktos and out of the Corinthian Gulf. Coming from Rhion they proceeded eastward along the south shore of the Gulf in a formation of four files, presumably one of 20 and three of 19 ships,[5] and were shadowed by (or rather shadowing) 20 Athenian ships moving in single file under the northern shore. The Peloponnesian formation at an opportune moment swung to the left, confronted the Athenians in line abreast and tried to drive them on to the shore. The advantages of such a quadruple formation are manifest: proceeding with several files next to one another it was compact, which facilitated communication; swung round it could reform into one serried line, but also into a double, less tightly ordered, line abreast.

With a length of some 35 metres a trireme must have needed upwards of 50 metres room in file/line ahead; with its total width of *c.*11.5 metres it needed some 17 metres in serried line abreast at

[4] But not as absurd as to give στοῖχος the unheard-of meaning of 'squadron' (e.g. Bengtson 1971: 92, n.6; Hammond 1973: 278 = 1956: 44; *AT*[2] p. 57). No one of these authors offers the shadow of an argument: Bengtson's 'Die Bedeutung von στοῖχοι kann, wie ich glaube, nicht zweifelhaft sein: Es sind Geschwader, keine Treffen' is a spell, not an argument.

[5] . . . ἐπὶ τεσσάρων ταξάμενοι τὰς ναῦς: Thuc.II 90. For the distribution see *AT*[2] p. 76. This formation could just as well be described as arranged ἐν στοίχοις τετταρσίν.

least,[6] that is to say that three ships in line abreast would take up the room of one in file. The four files of the Peloponnesians at Naupaktos would seem to be an indication that they did not intend to attack the superior Athenian ships in single line abreast,[7] but preferred a double line, like the Athenians themselves did in the battle of the Arginusai when they had lost their earlier superiority and were confronted by a superior Peloponnesian fleet.[8] By the same reckoning, the three files of the Persians suggest that they intended to form a single line abreast.

If it were known how long the three Persian files were and how long consequently the single line abreast was that could be formed on that basis, we would have an invaluable indication for the position the Persians intended to take up. And indeed we have that knowledge in all probability. As already noted, Aischylos tells us that the total strength of the Persian fleet in the battle was a thousand ships and adds that 207 of these 1000 were fast ships (*P.*339–340), ships particularly suited to attack that is, which was what the *stiphos* was there for.[9] The number 207 can be divided by three: this obviously suggests a relationship with Aischylos' three files, which on this assumption were 69 ships long.[10] Of course the specification of this number by Aischylos, perhaps an eyewitness (see below, p. 115), is not without purpose: and for a compact line abreast of 207 ships there is indeed an obvious position in the Órmos Keratsiníou, viz. between Ákra Kinósoura and Áyios Yeóryios island, a distance of

[6] Oars included, the width of a trireme was about 11 metres (cf. e.g. *AT*² 209, fig. 62; and also 164, Map 15, where they suggest that 30 ships in line abreast took up 418m, i.e. 13.9m for each ship, in its exactness an unexplained figure.

[7] In the circumstances, to achieve such a formation, which took up much more space than the original quadruple line ahead (some 1400 metres at least compared with a thousand), required far more manoeuvring and, above all, was far more liable to be broken through.

[8] For a reconstruction of this battle cf. Wallinga 1990: 141ff.

[9] On the meaning of the term 'fast' and equivalents as indicating an adequate degree of manning in naval parlance see Wallinga 1993: Appendix and below, VIII n. 15. In my view the differentiation of the degree of manning in battle fleets was an important tactical device when the mobile tactics of *diekplous* were beyond the capabilities of the navies in question, as was the case in the battle of Sybota (Th.I 48.4 and 49.6). For the different styles in naval tactics see Wallinga 1993: 73ff.

[10] Such files will have been short enough for the ships to be counted by the Greeks, possibly already in the afternoon before the battle when the tip of Kynosura must have been used as an observation point, and certainly during the actual Persian attack next morning.

*c.*3500 metres. In that position each ship would have about 17 metres' room in a serried line. If the Greek fleet had its base in and near Salamis City, such a formation would doubtlessly be attractive for the Persian commanders, especially if it could reach the position described before the Greek ships had been deployed. For in that case the centre of the Greek fleet would be fenced in in the harbour of Salamis/Órmos Ambelakíon and its wings pushed against the Salamis coast. If such a manoeuvre succeeded, the rest of the Persian fleet would have great freedom of movement, ships could be directed behind the attacking line to back it up and, above all, could land troops on Salamis and sow panic there.

If indeed the Greek fleet did have its base in Órmos Ambelakíon, the chances that the Persians developed such a plan and did so before Themistokles sent his messenger, having based his message on it, would seem to be very real. Many scholars, from the times of Grote on,[11] have indeed concluded that the Greeks were in that position. Alternatives are hardly available and even less defensible. Indefensibility (in a double sense) certainly is the term one should use for Hammond's absolutely fantastic idea[12] that the Greeks were stationed in the area to the north of Salamis city around the southwest side of Áyios Yeóryios and further north up to the modern naval base. Quite apart from the fact that Hammond completely misjudges the nature of these waters (see below, n.25), a fleet behind the narrow entry of what is now Stenón Naustáthmou could easily be pinned down and cut off in that backwater. The entry between Áyios Yeóryios and the Attic coast measuring some 1200m (not reckoning with shallows), a double or triple Persian line of only some 70 ships abreast would be sufficient to cordon off the Greek fleet and this would lay Salamis island open to Persian landings. In view of what we shall see was the strategic objective of the Persians—the capture/elimination of the entire Greek fleet—its stationing behind this *stenon* would have fulfilled Xerxes' dearest wishes.

The Greek anchorage[13] around Salamis city will not have been restricted to the bay of Ambeláki. With the ancient water level (see below, p. 62ff.) the coastline in that bay measured upwards of 1800

[11] Grote V 111 and e.g. Busolt 1895: 700; Bury 1951: 278; Meyer 1939: 368; Wilcken 1962: 141; Bengtson 1969: 174–75; Weiler 1988: 233.

[12] 1956: 32ff. = 1973, 251ff., esp. fig. 14 on p. 252.

[13] According to Hammond 'the Greek commanders had to bear in mind the

metres, that is to say that there was room for about 150 ships anchoring at right angles to the coast at 12m each;[14] more room would be available along Kynosura and along the coast in the direction of and up to Áyios Yeóryios, say upwards of 2700m; in sum 4500m,[15] enough room for some 375 ships, which is near the total strength given by Herodotos (VIII 48).

As I said, Ákra Kinósoura and Áiyios Yeóryios island are *c.*3500 metres apart in a straight line, that is room for 200 ships and a few more in serried line abreast at *c.*17m per ship. That may be considered very tight for an attacking line that needed manoeuvring space, but was perhaps just tight enough if the assignment was the suggested one of immobilizing the opponent and pushing him against the coast of Salamis, thus enabling others to give backing and to do the real damage elsewhere. In this perspective the attacking line of 207 ships implicit in the three files of Aischylos' *stiphos*, or its vanguard,[16] has just the right length (see Map III, between pages 66 and 67).

Aischylos' and Herodotos' figures for the Greek and the Persian fleet may in this way be related to features of Salamis Strait and lend some realism to what would otherwise be (and all too often has been) mere theorizing about the localization of the battle. This realism may further be enhanced by considering the difficulty of making sense of these figures in other ways. Indirectly this is demonstrated by the failure of the authors of modern reconstructions of the battle to seriously take into consideration, let alone to explain, the figure of 207 and the three files.[17] Indeed, if one looks at the reconstruction

facilities for beaching, because the triremes were hauled on land for the night' (1973: 271). This notion—that triremes were invariably hauled up onto beaches overnight when in commission—has been convincingly demolished in an excellent paper by Cynthia M. Harrison (1999: 168–71).

[14] In this bay it was perhaps possible to draw the ships on land, the bottom of its inner part sloping up gradually.

[15] This is more or less the station proposed by Munro (1926: Map 9 facing p. 307) and perversely called 'completely impossible' by Hammond (1973: 271 n.2).

[16] Aischylos' *stiphos* can hardly be restricted to the 207 ships in his three *stoichoi*: on his reckoning it must have comprised hundreds more. Probably, however, the 207 fast ships in front were for him the *stiphos* par excellence. Herodotos implicitly distinguishes the left/western wing, i.e. the leading/westernmost ships, of the Persians (= Aischylos' 207 or his *stiphos*) from the ships 'stationed behind' (VIII 89.2).

[17] In Hammond's battle order (1973: Fig. 15), which consists of twelve lines abreast behind each other, the foremost four cover a wider front than the rest (and ten are hors de combat, like two of the four Greek lines confronting them), there is no place for a unit of 207 ships. Morrison and Coates (*AT*[2] p. 56) do mention

of the battle proposed by Hammond and virtually taken over by Morrison, Coates and Rankov,[18] the impossibility of integrating Aischylos' figures in it is evident. Nor does it seem possible to combine them with other features of Salamis Strait. It is true that it might be argued that three lines (*not* files!) of 69 ships could block the entrance to Stenón Naustáthmou, but since it is inconceivable that the Greeks were stationed in that mousetrap, this combination cannot be taken seriously. Conversely, the file/line of 207 ships cannot be combined with a hypothetical plan of attack that would bring the Persian ships in line abreast into alamis Strait, which is roughly 1650m wide over much of its length i.e. 8m per ship for 207. Even for 207 ships in double line abreast the strait is no doubt too narrow (and why the odd number?). For lines of 69 ships there would be more than enough room across the strait (some 24m per ship), but such lines would never have been called *stoichoi*, nor would three of them operate in combination.[19]

So much for the Persian possibilities in Salamis Strait. As to the Greeks, their situation was not without its advantages. In any case, with their *c*.375 triremes they had ships enough to match the Persian front line of 207. Aischylos' figure of 300 even suggests that they did not man all their ships but concentrated the available oarsmen to maximize the oar power per ship, a wise decision in view of the searoom available. There is moreover reason to think that even so

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the 207 fast ships, but have no proposal as to their function; they perversely take the three files for squadrons (like others: see above n. 4) and suggest that these squadrons have a strength of 250 ships, taking as their clue the mention by Aischylos of a high-ranking Persian as commander of 250 ships, as if such a title could be used as evidence for the tactical organization of the Persians (cf. Edith Hall's note to *P*.323). Lazenby's treatment of this matter (174ff.) is very unclear, largely as a result of his accepting the reading of the manuscripts of Aischylos' *P*.366–68.

[18] Witness their (very small-scale) map of the battlefield (*AT*², p. 57). They differ from Hammond in locating the battle lines across the entry of Stenón Naustáthmou. It is unclear how they fit their Persian squadrons of 250 ships into this position, especially since they (optimistically) think that there is room for 80 triremes in line-abreast formation in that channel (p. 59). To say that 'this is the formation which <the Persians> must have adopted as soon as an engagement seemed imminent' and not to explain why they had not foreseen (and tried to exploit) that situation is all too easy.

[19] Hammond amazingly thinks that four and even twelve lines of triremes behind each other could usefully operate in a battle and this fantastic idea is endorsed in principle (if not taken over) by Morrison in his most improbable theory of the *diekplous* (1974: 21–26, cf. *AT*², p. 43; contra Lazenby 1987–88: 169ff. and Wallinga 1990: 143ff.).

not all these ships were employed in the defensive line confronting the Persian attack, witness the tradition concerning the Corinthian navy's absence from the battlefield, which though not to be taken at face value may well contain more truth than is commonly allowed (see below, p. 125ff.). The Greeks could be so sparing of their ships because their station in and around Órmos Ambelakíon, contrary to Hammond's, was a real position. On condition that there was sufficient time, i.e. that they were alerted early enough once an attack had begun, a strong battle-order could be deployed between a point immediately west of Ákra Kinósoura and the shallows to the south-east of Áyios Yeóryios. This position was backed by the south shore of Órmos Keratsiníou, could not be outflanked and had room to manoeuvre in the bay of Ambeláki at its back or, alternatively, to keep a small force in reserve there: Aischylos' 'chosen squadron of ten' (*P.*340) could have been such a force. In this position, more-over, the Greeks had a (hazardous) escape route on their left wing and, as the tradition suggests (see below, p. 127) room for a stratagem.

Further they had of course the advantage, much emphasized by Themistokles, that the Persians could not fully exploit their numerical superiority in these narrows. This was no doubt a real advantage, as was recognized in the end by the Peloponnesians when they agreed to stay in this position. However, as has been most acutely remarked by Lazenby (1993: 162), Themistokles may well have used this argument, not because it was tactically decisive in his own view, but because he could not publicly use what was for him the really clinching point, viz. that withdrawal to the Isthmus would bring the Greek fleet in a situation where flight and betrayal were far more difficult to prevent, not to speak of its tactical disadvantages. This may well have been a concern that was shared by more Athenians (and Megarians and Aiginetans). Herodotos says that the idea was put to Themistokles by one Mnesiphilos (VIII 57) and that may well be true[20] (without implying that Themistokles did not have it himself in the first place). After all, the better informed among the Athenians must have known about the battle of Lade and what had

[20] On the face of it this tale has all the features of the inventions (not perhaps *all* fiction nor necessarily spiteful: cf. Hignett 1963: 204) devised to appropriate some of the credit won by Themistokles. Mnesiphilos, a fellow-demesman, now revealed as a citizen of some importance by the ostraka (see Frost 1980: 67f.), may well have been among the advisers of the great man (see below, p. 156 n.1).

led to the disintegration of the Ionian fleet (Hdt.VI 9.2ff.). Narrow waters and above all a position ill accessible to political agents may have been seen as at least some safeguard against such dangers.

Again, even Themistokles must have had misgivings about the Greek chances in a straight battle (and therefore about the steadfastness of the Peloponnesian resolve). Everything depended on the ability, or rather inability, of the Persians to divise a promising plan of campaign. It may be a measure of the Persian success in this endeavour that their manoeuvring in the afternoon before the battle (VIII 70ff.) immediately led to the Peloponnesians' clamour for a reversal of the decision to stay. That is to say that the Greek commanders, and in particular Themistokles, must have been under great pressure to exploit to the utmost all the conceivable advantages of the terrain. In this respect the waters on their left wing must have seemed to offer chances. For here, at the entrance of Stenón Naustáthmou, there are and were shallows that could interfere with the movement and especially with the full extension of the Persian western (right) wing, depending of course on the depths prevailing here in 480 BC, which certainly were different from those prevailing now. To this thorny question we must now turn.

Though the causes of the difference are the province of the geologist and a mere historian ought to tread warily in this field, the evidence presented and discussed so far is archaeological: foundations of buildings, floors of stone quarries, lower ends of slipways, which are now all submerged, or farther submerged than when they were in use. It is unfortunate that the recording of the data in question has been rather unmethodical: locations are not accurately specified, measurements are imprecise ('2 to 3 metres') and observations have rarely been repeated independently, or so it seems. For all that, there is little room for doubt. Moreover, as a topographical issue the matter has been very well treated in two papers by Pritchett, whose judgment I take the more readily as my starting-point since it definitely errs on the side of caution.[21] Pritchett concludes that the sea level

[21] In 1959 Pritchett (see above, n. 2) put the rise of the sea level at about three metres (p. 256) on the authority of the Greek mining engineer Ph. Négris, who wrote important studies on this problem at the beginning of the 20th century (1904: 349–52; 1914: 13–111), and of contemporary geologists. In 1965, however, he changed his mind and opted for 1.50m (p. 100) quoting in support the Baedeker

in 480 BC was at least *c.*1.50m (5ft) lower than at present. This means that contrary to the situation prevailing now there lay *two* islands in the entrance to Stenón Naustáthmou, the one now called Áyios Yeóryios (enlarged by a fringe that is submerged today) and another which is now wholly submerged and known to the *Mediterranean Pilot* (140) as 'shoal' and 'sunken rocks'. This other island according to Pritchett was some 100 metres long (and, I add, about as wide: see map III). The description by Strabo of the passage from Eleusis to Piraeus reveals that in his time, or in that of his source(s), these islands were called Pharmakoussai (IX 1.13–14 C395). It is to be noted that for Strabo these were the only islands between Eleusis and the island of Psyttaleia to the south of the eastern exit of the Strait. This implies that the islands Léros and the two Kirádhes islets that now lie at the northern end of Stenón Naustáthmou were headlands in antiquity, which agrees with the depths between Léros and Salamis and between the Kirádhes[22] and the Attic coast.

Above water the situation here was in other words very different from that prevailing now, and this is also and even more true of that under water. Around both Pharmakoussai, as now around Ayios Yeóryios and the shoal/rocks, there were extensive shallows. Assuming that the trireme had a draught of 1.20m (4ft)[23] and that it needed ample water under the keel because of possible obstacles on the seafloor (an essential requirement for ships operating in formation!) I conclude that the limit of navigability for ancient triremes was at

Guide of Greece of 1909 on the submergence of the slipways in the ancient harbour of Zea, information which presumably goes back to the eminent topographer H.G. Lolling. However, since lamentably the lower ends of these slipways 'have nowhere been established' (Blackman 1968: 182 and note) and since Pritchett himself in this second publication adds evidence for submerged stone quarries in Piraeus at depths of up to three metres, his second thoughts do not seem to be well-founded. Among Négris' data are quarries 'en dehors du Pirée, près du phare qui se trouve sur la côte est du port' and also 'à l'entrée du port de Zea' (1914: 349), which are submerged two to three metres. I do not understand how Pritchett's more modest estimate of the submersion can be squared with these data. I note that Négris and (following him) Pritchett refer for these measurements to a discussion reported in the *Zeitschrift der deutschen geologischen Gesellschaft* (1875: 966). The participant contributing the observations in question is called Von Ducker and in the report is also referred to as 'Redner' ('the speaker'), which Négris mistook for his name.

[22] Now quite irresponsibly renamed Nisídhes Farmakoúsai (*Pilot*, 141); for a cogent refutation of Hammond's identification of the Kirádhes with the Pharmakoussai see Pritchett 1959: 255).

[23] For the draught of the trireme see *AT*² p. 198 fig. 56.

modern depths of 3.90m (2 fathoms, 1ft), i.e. 1.50 + 1.20 + 1.20 metres.[24] As a result the smaller Pharmakoussa with its shelf becomes a veritable barrier of *c.*600 metres long (from south-east to north-west) and *c.*200m across (see map III).[25]

The south-eastern end of this barrier is situated exactly where the right (western) wing of my hypothetical attacking line of the Persians would turn to confront the left wing of the Greeks. Here to proceed too far could prove fatal to the first ships (and if they had the commander on board, this could endanger the whole operation). Hence chances for the opponent. Also, and again because of the changed sea level, the waters around the other Pharmakoussa (Áyios Yeóryios), and especially the channel at its southern side, where Hammond situates the Greek naval base, will have been practically inaccessible to triremes (especially if the commanders did not have local knowledge). This would of course be very definitely so on Négris' estimate of the sea level rise (see above, n.21).[26]

Very interesting is the situation between the smaller Pharmakoussa island and the coast of Attika. Here there is now a narrow channel that may or may not have been navigable for triremes in 480 BC,[27] but anyhow must have been a source of worry to the Persians, who could not put it to the test with the Greek base so near. For if this channel was indeed navigable for triremes, it gave the Greeks a chance to get behind their foremost attacking ships the moment they turned to confront their opponents on the Greek left wing. One

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[24] As to the depth needed under the keel it is true that my estimate of 1.20m is a mere guess, but I do not think that it is exaggerated. The obstacles I think of are the wrecks of overloaded boats or large pieces of cargo, such as blocks of building stone.

[25] This barrier, which one cannot much reduce in size by reducing the rise of the sea level, is totally ignored by Hammond, although he estimates the rise at 1.50–1.80m (5 to 6ft) and consequently has to reckon with a larger barrier than is allowed by Pritchett (1973: 255 Fig. 15 and 259). For this reason alone his reconstruction of the battle, which he locates exactly where this barrier is in the way, cannot be taken seriously.

[26] If the limit of navigablity is set at the (present) depth of 3.90m (2 fathom, 1 foot) a narrow channel would perhaps remain open to the south of Áiyios Yeóryios; if at 5.40m (3 fathom) in accordance with Négris' ideas even that channel would become impassable.

[27] To judge by Admiralty Chart 894, the channel is now well over *c.*5.50m (three fathom) deep except for two points where the depths are *c.*5.10m and *c.*4.50m (2 fathom 5ft and 2 fathom 3ft). Pritchett's sketchmap (1965: 98 fig. 6), which is based on the 1:10,000 map of the Greek Admiralty, shows only the point of 4.50m.

would expect therefore that the Persians tried to do something about this danger by somehow obstructing the passage. In the tales about Xerxes' mole it is indeed suggested that they did try to do this.

The traditions in question are contradictory and contaminated by later speculation, but still deserve to be taken seriously, though not at face value.[28] Herodotos affirms that Xerxes, planning flight after the lost battle and meaning to disguise his plan for foe and friend, attempted to throw up a dam across to Salamis and had Phoenician merchantmen lashed together to serve as defensible work-platforms (VIII 97.1: ἀντί τε σχεδίης . . . καὶ τείχεος). According to Ktesias (*Pers.*26) and Strabo (IX 1.13 C395) Xerxes made his attempt before the battle. Strabo precisely locates Xerxes' projected dam where one would expect it, i.e. in the immediate neighbourhood of the Pharmakoussai, adding that Xerxes planned 'to dam the strait that leads to Salamis'.[29] Ktesias tops this strong tale by averring that Xerxes wanted to cross to Salamis with infantry, on foot that is.

In this case Herodotos' credibility cannot be rated any higher than that of Ktesias and Strabo. It is quite unbelievable that Phoenician merchantmen were brought into Salamis Strait, and so far too, *after* the battle. And even before the battle it must have appeared impracticable with the Greek base so near. But of course there was no need at all of these fancy-bred Phoenician ships. Some local craft loaded with stone would be sufficient to block the channel, narrow as it was, and such boats must have been available in Eleusis bay and could be brought to the channel by night. Nor is the one element that is common to the three authors, that Xerxes wanted to dam the Strait all the way to Salamis, any less fanciful. The sorry state of this part of the tradition about the hostilities at Salamis can

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[28] So they are taken by Green, who pretends that there is nothing inherently improbable about Xerxes' undertaking the building of a causeway in three sections right under the Greeks' noses and makes 'Xerxes' engineers' busy themselves for about a fortnight on it, without explaining or even asking how the story of such a gorgeous failure that was witnessed by all the Greeks could be so garbled by Herodotos (1970: 172f.).

[29] '. . . ὁ εἰς Σαλαμῖνα πορθμὸς ὅσον διστάδιος, ὅν διαχοῦν ἐπειρᾶτο Ξέρξης.' What is most interesting here is the width Strabo reports for this strait: two stades, i.e. *c.*360 metres, is exactly the width of the fairway between the two Pharmakoussai. That is so now, as a glance at the Admiralty Chart will reveal (see map III), but must have been even more pronounced in antiquity when the water level was so much lower. There is therefore no reason whatsoever to doubt the reading of the Strabo manuscripts, as has been done time and again.

perhaps be best explained by assuming that whatever it was that the Persians did precisely—and that they did something need not be doubted, nor that they did it before the battle[30]—this became known to the Greeks considerably after the fact; and if they had no information about the time and the exact purpose of the Persian attempt, their fantasy had free range. However, the really important thing about this episode is not what exactly Xerxes planned, nor whether he succeeded. The plan as represented by our authors surely was impossible and its execution a failure, but the point is that it definitely suggests that his tactical concept extended to this area and no farther. Combined with the certainty that the area around the Pharmakoussai was not freely navigable for triremes, it leaves no doubt that the modern Órmos Keratsiníou/Salamis Strait was the scene of the battle as planned by the Persians and that this was meant by the ancients when they located the battle in the *stenon*, *stenochoria* and equivalents.

The indications preserved by Aischylos and Herodotos regarding the battle-order of the Persians, in particular their vanguard, combined with the dimensions—horizontal and vertical—of the battlefield make it possible fairly accurately to determine the margins within which the Persians could develop a promising plan of attack and to trace the first outlines of that plan. Herodotos' account of the Persian manoeuvre of the day before the battle and its repercussions in the Greek camp and of Themistokles' reaction to it will enable us further to accentuate these outlines. On this basis we may then proceed to infer the progress of the operations as described by our two prime authorities.

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[30] If we had Herodotos alone, we would in view of the improbability of his version still be justified in correcting him as to the moment of Xerxes' attempt, because the operation so clearly makes sense *before* the battle, not after it. The two other testimonies therefore make that 'correction' highly probable. However, a diametrically opposed conclusion is reached by Lazenby (1993: 163): Xerxes' attempt followed the battle because Herodotos says so and because we may replace the impossible Phoenician merchantmen by stranded Phoenician warships. Neither argument is at all convincing. Even if we take Herodotos to be infallible, his informants certainly were not, and the stranded warships are just not what Herodotos says, quite apart from their uselessness as working platforms. It seems much more probable that the merchantmen are the product of speculation about what ships Xerxes could or should have used.

CHAPTER FIVE

THEMISTOKLES' MESSAGE AND THE PERSIAN WAR AIMS

Herodotos reports that on the day before the battle the Persian fleet came out in the direction of Salamis and that the ships took up positions in an ordered formation at their leisure. This was done late in the day so that there was no time left to join battle: it had become dark. Actually, Herodotos explains, the reason <of their coming out> was that they were preparing for the next day. This explanation, however, has been mostly ignored or in any case misunderstood, so that the crucial importance of this episode has not been realized.

In Herodotos' report we must distinguish three things: first, the proceedings on the part of the Persians the Greeks actually saw: the formation of a battle-order; second, the construction that was put on these proceedings at the time: that the Persians offered battle; and third, the correct interpretation which Herodotos (on better authority) adds in conclusion: that the Persians, far from offering battle, were really preparing for the next day.[1]

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[1] VIII 70: . . . παρεκρίθησαν διαταχθέντες καθ' ἡσυχίην. τότε μέν νυν οὐκ ἐξέχρησέ σφι ἡ ἡμέρη ναυμαχίην ποιήσασθαι· νὺξ γὰρ ἐπεγένετο· οἱ δὲ παρεσκευάζοντο ἐς τὴν ὑστεραίην.

In sentences of this type an action by one party raises expectations, but works out quite differently, the subject of the action being then emphatically resumed in the final statement by ὁδε and the like. Other examples in Herodotos: I 17.2 (Alyattes invades Miletos and is expected to wreck and burn housing; he—ὁδε—on the contrary only destroys the crops and then withdraws); I 107.2 (Astyages is marrying off his daughter, not as expected to a Median grandee: he—ὁδε—on the contrary, because of a dream, does so to a Persian of high rank); VII 218.3 (the Phokians come under Persian fire and take to flight, expecting to be the primary target of the Persian attack: the Persians—οἱδε—on the contrary simply pass them by. Further examples in Stein's commentary at I 17.9; cf. Kühner-Gerth I 578, 657f. and espec. S.L. Radt (1976: 265f.).

There is thus no suggestion that this really was a Persian attack that miscarried because the execution was too slow, let alone that it was a challenge: as I shall argue, the last thing the Persians can have wanted to happen was that the Greeks would come out. Therefore it is beside the point to say that 'as the enemy made no move, the Persians withdrew to land in the late afternoon' (Hammond 1967:

It is important to realize that what the Greeks saw was taken seriously by them. As already noted (p. 62), the Persian movements were considered so threatening[2] that the recent Greek decision to stay in Salamis was again called into question and a clamour arose to retreat to the Isthmos. Also, as Herodotos emphasizes, the nightly discussions that followed were still based on the assumption that the Persians continued in the same attacking formation.[3] This surely implied for them that the Persians would attack them in their position in Salamis Strait in that way, which was the cause of their alarm. This situation led Themistokles to send his messenger. It is to his message that we now must turn.

Aischylos' version of it is simple and straightforward: as soon as night had fallen the Greeks would no longer stay in their position, but would run away furtively in all directions to save their lives.[4] Herodotos says the same more succinctly ('they planned to run away'), but has an important addition, the disclosure that the Greeks were no longer unanimous, that pro- and anti-Persians would even fight each other. In this version it is emphasized that the Athenian commander, Themistokles, is the sender and that he is on the side of the king (VIII 75.2).

About this message much nonsense has been written and as much ingenuity squandered on specious refutations of the tradition.[5] Still,

239; likewise many others). The translation '*so* <my emphasis> they prepared to engage upon the morrow' (Rawlinson-Blakeney, similarly De Sélincourt and Lazenby: see below, n.19), which implies that the Persians offered battle, is grammatically unsound.

[2] Busolt's view 'Bei dieser Auffahrt müssen die Perser sich noch vor dem Sunde formiert haben, denn ihre Stellung erschien den Hellenen nicht beunruhigend' (1895: 697 n.1) is very wrong-headed, as is the grotesque suggestion of Masaracchia (1977: 191) that perhaps the Greeks did not take note of the Persian manoeuvre (and Herodotos' information about it was furnished by Persian staff officers?).

[3] . . .ὥσπερ τῆς ἡμέρης ὥρων αὐτοὺς τεταγμένους, ἐδόκεον κατὰ χώρην εἶναι: VIII 78.

[4] ὡς εἰ μελαίνης νυκτὸς ἵξεται κνέφας, Ἕλληνες οὐ μενοῖεν, ἀλλὰ σέλμασιν ναῶν ἐπανθορόντες ἄλλος ἄλλοσε δρασμῷ κρυφαίῳ βίοτον ἐκσωσοίατο (*P*.357–60). For ἄλλος ἄλλοσε cf. Thuc.I 74.2 (σκεδασθέντες): this essential element in the message is mostly glossed over, cf. e.g. Meyer: 'die Griechen wären . . . entschlossen zu fliehen' (1939: 367, cf. Bengtson 1969: 174); Burn: 'Aeschylus . . . says that the message was that the Greeks intended to leave Salamis under cover of night (1962: 450); Lazenby: 'in Aischylos the message is merely <!> to the effect that the Greeks are going to escape' (1993: 168).

[5] I give only one example, Hignett's (1963: esp. 227f., 403–08). His rejection of this tradition is chiefly due to two failures: first, he does not see the radical difference

there is no mystery about it, nor is it intrinsically impossible. One fundamental fact is that the message did *not* tempt Xerxes to attack in the narrows,[6] for that as we have just seen was the plan of the Persians before the message was sent. No doubt it is generally assumed that the Persians' having to fight in the narrows was exclusively due to Themistokles' insisting that the Greeks should take up position there, but that at any rate has nothing to do with the message. Also, one may well doubt if the assumption is valid. As we shall see, it is most probable that the Greek position in the narrows was precisely what the Persians wanted and that Themistokles was aware of this, or at least became aware of this when he witnessed the Persian preparations for battle. Themistokles' message therefore had a different purpose.

Herodotos' report on the movements of the Persians of this afternoon is of course very defective, as he lacked authentic information about the Persian plan of campaign. His Greek informants merely reported how the Greeks interpreted the Persian movements they observed. We are therefore reduced to hypothesizing. Still, it is possible on the basis of the preceding enquiry to frame a hypothesis concerning the cause of the Greek panic. As I have argued, the Greeks must from the beginning have felt some uneasiness about the strength of their position in the corner of Salamis Strait and realized that its defensibility depended to an uncomfortable degree on whether the Persians would be able to devise a promising plan of attack or not. Evidently, they now had seen demonstrated that

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between the versions of the message of Aischylos and Herodotos on the one hand and Diodoros (XI 17.1) on the other (Diodoros absurdly alleges that Themistokles assured Xerxes that the Greeks were going to run away <!> from Salamis to assemble at the Isthmos. Hignett actually prefers this worthless fiction); second, he does not understand Herodotos' account of the Persian movements on the day before the battle and misrepresents it as an attempt to induce the Greeks to come out and fight.

[6] As seems to be the quasi-unanimous view of handbook writers: e.g. Schachermayr 1969: 147 ('. . . daß es gelang die persischen Geschwader zum Einlaufen in den engen Golf von Salamis zu verlocken'); Bengtson 1969: 174 ('Die Absicht, die Perser dort zum schlagen zu bringen, wo es Themistokles wünschte, offenbart seine geheime Botschaft an Xerxes . . .: Xerxes solle bald zupacken, denn die Griechen seien zur Flucht entschlossen'); O. Murray 1980: 278 ('. . . it seems that it was his stratagem of a secret message to the Great King which induced the Persians to desist from attempts at blockade (which would surely have been succesful) and risk a pitched battle in the narrow waters of the Bay of Salamis'); Fine 1983: 313 ('the main

the Persians had done this, and as clearly Themistokles' motive in sending his message must have been to disrupt the Persian preparations.

To gauge what his possibilities were, we must again look at the Persian battle order as the Greeks had seen it come up. As I explained above, Aischylos' summary of the Persian dispositions after the implications of Themistokles' message had been digested, i.e. his division of the Persian forces in a *stiphos* and blockading squadrons and the distinction of three files and 207 fast ships in the *stiphos*/battle order, can be combined with features of Salamis strait to yield a Persian attacking line, the vanguard of their battle formation, precisely adapted to those features. If, as I suggested (above, p. 58), this vanguard had orders to force the Greek ships back onto the Salamis coast and to hold them there to enable the rest of the fleet to do the real damage, the majority of the Persian ships and especially the 207 fast ones must have had precise and detailed orders for co-ordinated manoeuvring, especially at the beginning of the battle. This must have necessitated careful preparation, as is indeed described in precisely such terms by Herodotos (VIII 70 quoted V n.1). The execution of these preparations in full view of the Greeks was of course a disadvantage for the Persians, although as I shall argue they may have seen possibilities to minimize what they must have considered a calculated risk.[7] Also, the full view had its advantages, witness the Greek reaction. To Themistokles on the other hand the recognition of what exactly the Persians were up to opened the way to interfere with their plan. What his message effected is clear: it led to a re-formation by the Persians of their battle order, i.e. to the break-

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Persian fleet approached the eastern end of the straits . . . and by some incredible folly—or tricked by one of the many stratagems which modern ingenuity has suggested—allowed itself to be enticed into the narrow waters'); Osborne 1996: 337–38 ('enticed in here <the waters between Attica and Salamis>, the Persians were comprehensively defeated').

[7] Lazenby (1993: 166–67) has suggested that 'the puzzling behaviour <of the Persians> in apparently challenging for battle when it was too late for a battle to take place was just a cover, designed to lull the Greeks into a false sense of security' when they saw 'the enemy assembling in the open waters outside the straits and then retiring tamely to their anchorages.' The suggestion is of course made less than attractive by the outcome of the manoeuvre: the order in which the Persians had appeared (certainly not 'outside the straits'!) continued to perturb the Greek commanders during their nightly battle of arguments (VIII 78) and, what is decisive, Themistokles' evaluation was radically different: his conclusion was that something had to be done about it by all means.

ing up of their original dispositions. This is implied in the reports of both Aischylos and Herodotos, though it is stated in so many words by neither. Presumably for that reason it is not recognized in modern treatments of the battle. What is implied is that ships were withdrawn from the original battle formation as rehearsed in the afternoon and given the order to block the Greek escape routes at Kynosura and Keos. Aischylos nor Herodotos explains how this was done, but Diodoros has preserved a tradition that may well be trustworthy, specifying that 'Xerxes dispatched the Egyptian fleet to block the strait between Salamis and the land of Megara', at Herodotos' Keos that is.[8] If true (as I am sure it is), this speaks volumes for the thoroughness of the Persian counter-measures. The Egyptian fleet had been the most successful formation of the Persian forces in the last (and only large-scale) fight at Artemision (VIII 17) and it is most probable that it had for that reason been assigned an important task in the original plan of attack, an assignment that must now have been cancelled, or entrusted to other, less-reputed ships. As yet another squadron was now withdrawn from its post in the Persian battle-order and sent to block the Kynosura exit, the Persian attack must have been seriously weakened, in any case in numbers[9] and, if Diodoros' supplement to our chief authorities is accepted, also in quality.

[8] DS XI 17.2: as I have argued elsewhere (1993: 118f. and n.34), Diodoros' chief authority in this chapter, Ephoros, may well have preserved valuable information about the Persian navy, since his home town Kyme had been an important base in the Persian naval organization. As far as this Egyptian fleet is concerned, the information may also go back to Egyptians settled in Lydia by the Persian kings (Xen.*Cyr.* VII 1.43–5, cf. *Hell.*III 1.7 and Sekunda (1985: 19) and of course to informants in Egypt itself.

[9] The Egyptian fleet numbered 200 triremes (Hdt.VII 89.2), though Diodoros' '*the* Egyptian fleet' need not mean that all its ships were sent to the Póros Megáron. Plutarch (*Them.* 12.5) mentions the sending by Xerxes of 200 ships 'to block the Strait at both ends and to form a girdle between the islands' (Psyttaleia, Salamis and the islands in the Póros Megáron??). This, as Frost suggests (1980: 145–146), may come from Diodoros' source, but note that Plutarch does not restrict his blockade to the western exit and so appears to paraphrase Herodotos VIII 76.1 with the addition of the figure. It surely cannot be excluded that the blockade of the Kynosura exit was also entrusted to the Egyptian fleet. The insinuation attributed to Mardonios to the effect that the non-Persian crews of the fleet, including the Egyptians, had been cowards in the battle of Salamis could be (and has been) used as an indication that the Egyptians participated in it (VIII 100.4), but must not in my view be taken seriously: the tradition about this insinuation, if not pure fantasy, cannot be taken as historical in all its elements. What Mardonios really said, no Greek knew.

On consideration, the detachment of all but the very best ships for this new task is perhaps less surprising than it surely appears at first sight. If the Greeks really decided on flight in the night—a desperate step—the greatest demands would be made upon the blocking forces to hold their frenzied opponents. In any case the Persian battle order must have been considerably weakened not *only* because of the displacements in themselves and the quality of at least one of the displaced squadrons, but equally because they entailed new assignments and orders for other units, for which no such leisurely preparation as that of the afternoon was possible. Moreover, these changes necessitated movement of ships to new (starting) positions in the dark, which must have taken time. Hence the tradition about activity throughout the night in the Persian camp preserved by both Aischylos and Herodotos.[10] This of course need not mean that *all* the Persian ships were involved in this nightly redeployment: in the short time available it would have been disastrous not to maintain the original battle-order to a large extent. That is why I am sure that Aischylos' data regarding the fast ships apply to both the first and the second version.

If I am right in assuming that Aischylos' 207 fast ships in three files were scheduled from the beginning to be the vanguard of the Persian battle-order, I would infer that this vital part of their *stiphos* was not affected.[11] Not only did the crews of these ships have to rest before their all-out effort of the following morning: in the original set-up of their attack, but certainly after the Persians had revealed it to the Greeks, they no doubt had to start very early on the following day to make the attack as surprising as possible. This would improve their chances of forestalling the full deployment of the Greek battle-order and in any case to come equal with its western wing and so to prevent the flight of the ships posted there.

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[10] *P.*382: καὶ πάννυχοι δὴ διάπλοον καθίστασαν ναῶν ἄνακτες πάντα ναυτικὸν λεών; Hdt.VIII 76.3: Οἱ μὲν δὴ ταῦτα τῆς νυκτὸς οὐδὲν ἀποκοιμηθέντες παραρτέοντο. I see no possibility (and no need) to fix exact times for these nightly movements. Conversely, no weight must be attached to the seeming exactitude of the timing of Persian movements by e.g. Herodotos ('about midnight': VIII 76.1).

[11] One could of course consider the possibility that this vanguard was at first organized in four *stoichoi*/files, like the Peloponnesians at Naupaktos (see p. 56) and a correspondingly greater number of ships, their assignment being to attack the Greeks in double line abreast, and that one of these files was taken out of this formation and given another task, but it seems pointless to speculate. The Persians, in any case, had not the motive of the Peloponnesians that their ships were inferior.

In the light of these last observations one must of course keep asking why the Persians decided to risk that the Greeks would see through their tactical plan. This must have been because, as I suggested, their leisurely preparation in the afternoon in sight of the Greeks had a great advantage apart from its desirability as a rehearsal, especially in case the Persian attack was planned as I have just outlined. In a sound running exactly east-west like Salamis Strait attackers coming from the east at or just before sunrise[12] and straining to surprise the enemy can profit from the atmospheric conditions of that early hour. In Salamis Strait the attacking ships, if not actually invisible from the West, would be ill-defined against the high background of Mt. Aigaleos, still in the shadow, and this would become worse initially as the sun ascended and dazzled the Greeks. The Persians would in other words be able to begin their rush for the Pharmakoussai unobserved by the Greeks. Conversely, the Persians would have all the benefit of the increasing light, which would make the co-ordination of their movements easier.[13] Of course, these potential advantages would not, or at any rate to a lesser degree, be available in overcast weather (which we do not hear about at the time of the battle, on the contrary: see *P.*366–68). However, even in that case Salamis Strait has one more feature that much favoured an attacker bent on a surprise attack and using the cover of darkness. This is the presence on the western horizon of a most opportune landmark, the conspicuous hill now called Vróki, which has a height of 150m/492ft and is situated on Salamis island between the village of Paloúkia and the modern naval base, northwest of Áyios Yeóryios (see maps and plate I). Ships coming from Piraeus and entering Órmos Keratsiníou have an ideal orientation point in Vróki: if they keep to the middle of Ísplous Kerámou and steer straight for it they will meet no obstacles or hidden dangers nearly all the way to Áyios Yeóryios, the fairway having an average depth of more than ten

[12] The battle took place shortly after the equinox (cf. Busolt 1895: 703 and n.3), hence the sun rose exactly in the east.

[13] I base this analysis of the atmospheric conditions on consultation with the great naturalist M. Minnaert, late professor of astronomy in the University of Utrecht. An attempt at verification, undertaken in September 1964, turned out to be futile as a result of the superabundance of artificial light along the northern shore of the Strait.

The western horizon of Órmos Keratsiníou: Vróki to the right

fathom (18.52m).[14] Three columns proceeding alongside each other in this way would easily reach the position between Cape Kinósoura and Áiyios Yeóryios which covered the Greek line, travelling the distance of some three nautical miles at full speed, in about half an hour.[15] If they started out before sunrise, they could hope to remain invisible to the Greeks long enough to surprise them.[16]

Such a surprise attack of course required most careful preparation, even if the battlefield lent itself to it. In any case it was desirable that commanders and captains of the vanguard would personally reconnoitre the field, especially the first mile (reckoned from the entrance of the Kantharos) which had to be passed in darkness.[17] I would assume that the Persian vanguard came far enough into Salamis

[14] There is thus no need for assumptions like that of Lazenby (1988: 177) that 'the Persians had to feel their way along an unknown coast.'

[15] There is only one reasonably accurate and trustworthy testimony for the speed of 5th century triremes, viz. Thucydides' account of a run from Chios to the Hellespont by a Peloponnesian fleet under Mindaros in 411 (VIII 101), which took two days' rowing. On the second day, when this fleet travelled from the Arginusai to Rhoiteion, a distance of *c.*88 nautical miles, the men were at the oars for some 18 hours from *c.*3.00 hours ('in the middle of the night') to *c.*23.00 hours ('before midnight'), interrupted by a quick meal. This works out at just under 5 knots. Speeds over short distances will have been considerably higher, but could not be measured for lack of accurate timepieces, so there is no record. During sea trials conducted with the modern 'replica'/reconstruction of the ancient Athenian trireme, exemplarily presented and commented by J.T. Shaw (1993: 39–44, cf. *AT*[2] p. 259ff.) a cruising speed of 4.2 nautical miles was reached over 31 nautical miles and maximum speeds in spurts of over 7 knots. This, allowing for the relative lack of experience of the modern crews, suggests that Thukydides' report on Mindaros' run is trustworthy and that the maximum speeds of ancient triremes were at least comparable to, probably somewhat higher than, those of the modern reconstruction. In contrast, Xenophon's assertion (*Anab.*VI 4.2) that the distance between Byzantion and Herakleia Pontike, or 129 sea miles, took a trireme a long day under oar is not to be trusted. Xenophon—for an Athenian a perfect landlubber—here had great interest to make the distance (or the crossing time) as short as possible in order to be able to suggest that the colony he had projected in this region would have Greek neighbours near by (for a different, to my mind far too optimistic and essentially uncritical, view see *AT*[2] p. 102ff.). The scepticism of a Byzantine reader who glossed Xenophon's 'long day' with 'a very long day' (ἡμέρας μάλα μακρᾶς) was better founded.

[16] That this was a surprise attack at dawn is rightly stressed by Pritchett (1974: 161, cf. Hall's commentary on *P.*386–87). His qualifying of the Greeks as the attackers ('aggressors') must be due to inadvertence: that a Greek ship was the first to ram an opponent (*P.*409–10; VIII 84) does not make any difference in this respect.

[17] I assume that the vanguard did not have to come all the way from Phaleron, but berthed in the Kantharos, or possibly on the eastern side of Ísplous Kerámou and in the two inlets situated there (see Map I).

Strait in the afternoon before the battle to reveal its full threatening extent to the Greeks.

Though a shock reaction in the Greek camp will not have been unforeseen, and possibly even intended by Xerxes, outright panic cannot have been exactly the effect he desired. Still, that effect it seems to have been. But for Themistokles' intervention, it would almost certainly have led to the disintegration of the Greek fleet and indeed of the entire alliance. Of these two effects, the latter no doubt had been and still was the long-term objective of Xerxes' expedition, but the former certainly was not. This is made certain by the success of Themistokles' message, which forecast precisely this and thereby impelled Xerxes to prevent it. What Xerxes will have hoped for was that the Greeks would lose courage and coherence, no more, precisely what Themistokles' message also appeared to reveal. The other side of this message, however, the threat that the Greeks would scatter in flight, cannot have been welcome to the King at all. For what its success makes absolutely clear is that the king wanted to capture the Greek fleet (or to annihilate it) to the last ship. This is entirely believable on other grounds.

With the escape of this fleet, or even smaller parts of it (and there was no guarantee that the parts would be small), there threatened a large degree of destabilization in the entire eastern (and possibly even in the western) part of the Mediterranean. A taste of what that could mean for the Persians and in particular for their Phoenician and indeed Karthaginian friends and allies was the career of Dionysios of Phokaia after he had broken through the Persian line in the battle of Lade fourteen years before. His raiding reached from Phoenicia to Sicily and caused Phoenicians, Etruscans and Karthaginians a lot of damage, although he had only three triremes (Hdt.VI 17). Even more serious had been the decampment of the Phokaians when the Persians attacked their city following the subjection of Lydia. On that occasion an alliance of Etruscan cities and Karthage was hard put to eliminate the danger. In spite of a great numerical majority it cost the allies five years' preparation and heavy losses to overcome this deadly threat to their prosperity (Hdt.I 166–67).[18] It is in my view hardly credible that the Phoenician kings would not have

[18] For this important episode see Wallinga 1993: 82ff. and below, p. 110ff.

alerted their overlord to the calamities which would result from a massive flight of the Greeks with their navies.[19] The urgency of this danger is driven home for us by Themistokles' threat that unless the Peloponnesians stayed in Salamis the Athenians would take their families on board and go to Siris in Italy (VIII 62). This need not have been immediately alarming for the Phoenicians and their 'children' in the West, if they knew, but as far as they were concerned the Athenians (not to mention Aiginetans and Megarians) could be headed anywhere. It is very strange indeed that this exorbitant threat does not figure in any modern analysis of Xerxes' problems.

In this perspective, however, it is less difficult to understand why Xerxes not only believed the message, but acted on it so promptly. It strengthened him in the train of thought that had led to the initial plan to seek out the Greeks in Salamis Strait and convinced him that delay was impossible now. If, moreover, the part of the message that is not referred to by Aischylos but is reported by Herodotos, that the Athenian commander had lost confidence and taken sides with the king, is genuine (I see no cogent reason to doubt that Themistokles made this particular suggestion), the message opened possibilities Xerxes must have jumped at. In this perspective Aischylos' picture of the king's reaction and his threats (*P.*361–71) is perfectly realistic. And the message in Herodotos' version had another most interesting aspect.

Unlike Herodotos' informants, and in their wake most if not all moderns, Themistokles must have thoroughly speculated about the king's plans for Greece after the success of this expedition, which of course not even he could rule out. In this case the conquered Greek states would have to be organized as a dependency which could be presumed to be shaped after the Ionian (or generally parathalassian) model. In this model local potentates were an important factor, as is known from Ionia and demonstrated e.g. in what one could call Xerxes' naval staff (Hdt.VIII 67). It was reasonable to expect that

[19] I am firmly convinced that the coincidence of the Persian and the Karthaginian expeditions of the year 480 is not fortuitous, though there is no need to assume direct collaboration and co-ordination between Xerxes and Karthage. The cities of the Phoenician motherland must have been fully competent to see the advantage for themselves (*and* their overlord) of a war on the doorstep of the Sikeliots. Regarding the exact synchronism of the battles of Salamis and Himera see Ph. Gauthier's excellent paper (1966).

the Persian victors would choose their local agents from among the present leaders, preferably those converted to the king's views. It may well have surprised the Persians that up to their arrival in Athens the weight of their numbers had not already led to defections among the maritime states, as it had among the terrestrial ones. A message like Themistokles' will therefore have been hoped for, if not expected, though not perhaps from so prominent a leader nor specifically from the man whom they may have known to be the creator and soul of the Greek alliance. On the other hand, though Athens' citizens had so far played the chief part in the Greek resistance, they now also had suffered the most grievous loss in the destruction of their city. A reversal of feeling on their part could not be called entirely surprising and certainly was something to bank on for the Persians, witness also their unexpected diplomatic offensive in the aftermath of Salamis (VIII 140ff.).[20] All in all, coming from this side the message must have been very welcome to the king and his advisers. Hence the eagerness with which they took it as their lead to make absolutely sure that no Greek ship, let alone squadron, would escape.

Now if it was so vital for the Persians to prevent the Greek fleet and indeed any Greek ship from escaping, an obvious question is how they had originally planned to achieve this objective. Not many students have posed this question, because almost no one has attached any particular significance to the Persian movements that led to Themistokles' message. Grote for instance merely notes in a paraphrase of Herodotos' words that Xerxes' fleet 'was seen in motion towards the close of the day <the day of the Greek and Persian counsels of war>, preparing for attack the next morning' (V 125). This at least takes Herodotos seriously. Grundy on the other hand conflates Herodotos' Persian movement which occasioned Themistokles' message with Aischylos' rearrangement of the Persian forces which followed on the receipt of the message (*P.*366ff.) and then blames Herodotos for 'his mistiming of this movement' (1901: 377). In fact

[20] On these overtures see the judicious remark of Lewis (1977: 25): 'That Xerxes inherited a grudge against Athens is a natural view of our Greek sources, tempered, we may think, by the evidence of the diplomatic overtures to her in the winter of 480/79'.

he treats Aischylos as if he were a historian presenting a full and systematic account of all the Persian movements and, moreover, ignores Herodotos' version of Aischylos' rearrangement (VIII 76). Others have made even less of the Persian movement: Burn and Hignett for instance entirely ignore it. Conversely, in his recent study of Salamis Lazenby goes deeply into the problems posed by Herodotos' report on the Persian preparations (1993: 165ff.) and he at least has considered the possibility—which Herodotos' wording in my view makes a certainty[21]—that 'the Persians had <by that afternoon> already decided to infiltrate <wrong term!> the straits and try to take the Greek fleet by surprise' (167). But he has no clear view of what the supposed Persian decision implied in operational terms and in particular of what exactly it aimed at and his discussion therefore does not lead to an enlightening conclusion. A very clear concept concerning the original Persian plan of campaign has been proposed by O. Murray (1980: 278). He thinks that the Persians originally intended to force the Greeks into surrender by blockade and in his view this would 'surely have been successful.' Themistokles' message then 'induced them to desist <from this plan> . . . and <to> risk a pitched battle in the narrow waters of the bay of Salamis.' But notwithstanding its clarity this concept is impossible to square with the tradition. Both Aischylos and Herodotos unambiguously ascribe attempts at blockade to the Persians only *after* Themistokles' message had been received and there are no indications whatever that such attempts had preceded the message, quite on the contrary. The Persian movements of the afternoon before the battle were part of preparations for battle in Salamis Strait. Also, on Murray's own premiss it is strange that the Persians should have been so docile. For it is hardly open to doubt that thanks to their numerical majority—which Murray improbably doubts[22]—the Persians would have been more than able to make a blockade a success in so far as this would have led to the elimination of the Greek naval arm as a military factor and thereby to the turning of the Isthmos and the complete defeat of the Greek alliance. This is the plausible basis of Murray's

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[21] Lazenby shares the wrong translation of the last words of VIII 70.1: '*so* they began to prepare for the next day' with Rawlinson, Blakeney and De Sélincourt.

[22] Believing that they had started out with 600 triremes (1980: 270), on which see my comments, above p. 42 and n.34.

own reasoning and is not in any way told against by the implications of Themistokles' message. However, if such a triumph had been achieved at the cost of the escape of, say, the Athenian fleet or a large part of it and possibly the Aiginetans and Megarians (not to speak of others), this would evidently have been considered a failure by the king. And contrary to Murray's optimism I do not think that a blockade could have been made proof against such a possibility.[23]

The original Persian plan of campaign cannot therefore have been to force the issue by blockading the Greeks, but must have been a real plan of attack, for instance the one proposed above which aimed at immobilizing the Greek ships by pushing them against the rocky shore of Salamis under which they anchored. As long as there was no sign that the Greek allies were at loggerheads, all the Persian commanders had to do was to ascertain that their front line was wide enough to catch all the enemy ships and I have shown that their vanguard of 207 fast ships could be considered sufficient to realize such an assignment. As soon as this primary objective was accomplished, second-line squadrons could support this vanguard in its battle with the Greeks and, when the latter were fully engaged, troops could be landed on Salamis to attack the civilians there. In chapter VI I shall present evidence that such landings were part of the Persian plan of campaign.

The interpretation here offered of the reasons behind Themistokles' message to Xerxes and behind the king's reaction raises the important question whether the considerations which led the king to redeploy his forces were exclusively the effect of the defensive strategy of the Greeks and in particular the generalship of Themistokles, or had obtained since the start of the expedition. In the former case we would have to assume that the Persians started out without a clear and detailed plan of operations, as does indeed seem to be the view of the overwhelming majority of modern students; in the latter, Themistokles' message would have merely caused a change of plan that did not affect the basic strategy.

As I have suggested, the final Persian battle plan—the combination of blockade and frontal attack—was not exclusively conceived

[23] For comment on the difficulty of blockading operations for ancient warships see Thiel 1954: 157, and especially the account of the siege and blockade of Lilybaeum in the First Punic War (*ib.* p. 265ff.).

under the influence of Themistokles' message. According to this view there was an original plan which only differed from it in that a formal and undisguised blockade was not part of it. Still, the hypothetical plan of attack I have inferred from Herodotos' account of the Persian movements of the day before the battle and from Aischylean data would, if it had been successfully executed, i.e. if the Persian vanguard had been able to reach and hold the line between Cape Kinósoura and Áyios Yeóryios island, have amounted to a blockade or a tight investment just as well. That would mean that the Persian command had conceived this plan, or at any rate the rationale for this plan, before Themistokles had suggested anything.

So far my argument has been based on circumstantial evidence and this has of course been interpreted very differently by others, if indeed it has not been ignored. However, where the naval aims of the Persian king are concerned Herodotos has preserved a capital testimony, again generally ignored, which evidently goes back to 'Ionian' witnesses aboard Xerxes' fleet. In his preface to the fights at Artemision he describes the frame of mind of the Persian crews on reaching the field of operations in telling terms. When they arrived at Aphetai they found out by autopsy that their expectation that only few Greek ships would be lying in wait for them was correct.[24] So they were eager to attack and try to capture them. The commanders, however, decided not openly to attack them as yet, for if the Greeks saw them coming they might take to flight and under cover of darkness inevitably make their escape, whereas the order was that no fire-bearer (i.e.: no soul) must be allowed to get away and survive (ἔδει δὲ μηδὲ πυρφόρον τῷ ἐκείνων λόγῳ ἐκφυγόντα περιγένεσθαι: VIII 6.2).

This is a most intriguing piece of evidence. Grote, one of the very few students to take note of it, takes it at face value: 'had they attacked . . . immediately . . . they would have gained an easy victory . . . But this was not sufficient for the Persians, who wished to cut off every ship among their enemies even from flight and escape' (V 98–99; cf. Grundy 1901: 330). Grote nor Grundy asks the obvious question what this instruction signifies with regard to the aims of the expedition, nor notes that it is not much to the purpose in view of the task immediately ahead, viz. to force the passage to the

[24] I notice that here also a large numerical majority of the Persians is implied.

Malian Gulf and eventually to land troops to take Leonidas in the rear in case the Persian army failed to crush him and to force the pass of Thermopylai. Though, as I shall argue in a moment, we have every reason to accept that the commanders of the Persian navy were under such an instruction, it was not the only reason why they did not attack the Greeks at the moment of their arrival. For this the task ahead and the damage caused by the storm are sufficient explanation. Herodotos' report seems to me to be the answer to a Greek question, not improbably his own, about the failure of the Persians to attack the Greek fleet at that moment. This answer could obviously be discovered among witnesses who had served in the fleet, his own Halikarnassian and Samian fellow-countrymen in the first place. The terms they used give this answer its unique interest.

The Persian commanders had been instructed to see to it 'that not even a fire-bearer (πυρφόρος) would escape, as they put it.' On the face of it Herodotos' wording clearly signifies that these were the terms of the original instruction, which were translated into Greek, presumably from the Persian (or the Aramaic). In other words, the saying or proverb that was employed in the formulation of the command had its origin in the eastern, Persian or Aramaic, world. However, this is not at all the way it is taken by modern students. According to Macan 'ἐκείνων in τῷ ἐκείνων λόγῳ must refer to the Persians, but τῷ ἐκείνων λόγῳ cannot be intended to ascribe to Persian origin the obviously Greek, or Lakonic, proverb.' Other commentators (Stein, How-Wells, Van Groningen), though less outspoken, evidently think likewise. Nevertheless this view is far less plausible than it may seem at first sight.

In Zenobios' collection the proverb is indeed quoted (in the form οὐδὲ πυρφόρος ἐλείφθη), but in the elucidation[25] the term πυρφόρος is replaced by μάντις and Macan's Laconian fire-bearer (who is known from Xenophon: *Lac.* 13.2), is not even mentioned, just as in the *Suda* (*s.v.* πυρφόρος) where the fire is handled by 'priests'. Moreover, the way Dio Cassius uses Herodotos' saying makes certain that *he* did not know it as a Greek proverb. In describing a Gallic attack

[25] *Paroem.* I 134–35. Professor Winfried Bühler of Munich University, who is preparing a new edition of Zenobios, has been kind enough to let me see a rough draft of the article on πυρφόρος and to comment on my interpretation of Herodotos' use of the proverb (without endorsing it).

on one of Iulius Caesar's lieutenants he stipulates that 'it was their <the Gauls'> avowed purpose that not a fire-bearer should escape' (XXXIX 45.4: E. Cary's translation). Dio's own words are: 'καὶ ἔδει γὰρ μηδὲ πυρφόρον *τῷ λόγῳ αὐτῶν* σωθῆναι' and the ones I have underscored disclose that he does not use this expression as a (Greek) proverb, but is quoting Herodotos in paraphrase. As to the other writers who use the proverb, it is striking that they are all from the East, the Septuaginta to begin with, who use it in the translation[26] of Obadja (*Ob.*18), and further Philo Judaeus (*Vit.Mosis* I 179), Aelius Aristides (*Or.*III 261), Gregory of Nazianzus (*Or.*V 2) and later writers. This suggests that the proverb had its origin somewhere in the East.

In his commentary on Herodotos' phrase Masaracchia has suggested that 'it probably refers to the bearer of the sacred fire in the Persian army (who was ascribed by the Persians to the enemy),' (1977: 159) and though he does not offer the shadow of an argument, let alone supporting evidence, his suggestion most probably is on the right track, for there are indications that there were Persian functionaries associated with fire who had also to do with the army: these men could have had a title that was more or less equivalent to Greek πυρφόρος. In his account of the preliminaries of the battle of Issos Curtius describes the Persian army starting its advance *patrio more*: in front of the line of march the fire, called sacred and eternal by the Persians, was carried on silver altars ('ignis, quem ipsi sacrum et aeternum vocabant, argenteis altaribus praeferebatur': III 3.9); and in evocating a parade in honour of the great Cyrus Xenophon mentions 'men who carry fire on a great altar' (*Cyrop.*VIII 3.12: καὶ πῦρ . . . ἐπ' ἐσχάρας μεγάλης ἄνδρες εἵποντο φέροντες). These ἄνδρες φέροντες (presupposed in Curtius too) are of course practically identical with πυρφόροι and ought to have had an equivalent Persian title.[27]

In the light of these data the conclusion seems inescapable that Herodotos' proverb is far more likely to be eastern, indeed Persian,

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[26] Actually also a paraphrase: the Hebrew says literally that 'there will be no escapee in the house of Esau.'

[27] In this connection it is relevant to note that the palace administration in Persepolis knows two functionaries with titels which have been derived from *ater* (fire), **aθravapati* and **aθrvasa*, the latter translated as 'keeper of the fire' ('gardien du feu', cf. Briant 1996: I 260–61), but the derivation (from Elamite *haturmabattis* and *haturmaksa*) is doubtful, especially in the former case (see Boyce 1982: 135–6). In writing this note I have had valuable advice of Mr. W. Henkelman.

in origin than Greek. And if this is so, a most interesting corollary follows, for we would have to assume that the presumption with which I opened this discussion is right, that Herodotos here has preserved the actual wording of a Persian command and, with it, a testimony to the strategic objective of the Persians that has remained free from Greek (re-)interpretation. It makes virtually certain in my view that Themistokles' message was inspired by a correct evaluation of Xerxes' strategy as it had determined the operations of the fleet right from the beginning.

There is one episode in Herodotos' account of the movements of the Persian fleet, where one can see that the views of his informants were strongly influenced by this same evaluation of Xerxes' strategy. Herodotos follows up his report of the arrival of the Persian fleet at Aphetai with the account of the dispatch of 200 Persian ships with orders to sail round Euboia to the Euripos, there to block the Greek line of retreat (VIII 7.1). These orders seem to follow from the instructions of the commanders, as Herodotos says in so many words: they were issued to carry these instructions into effect ('πρὸς ταῦτα ὦν τάδε ἐμηχανέοντο'). This account of Herodotos is also accepted by Grote and by many other modern students. Nevertheless I consider it a wholly unbelievable fiction.

As I have already argued, the Persian fleet at Aphetai must have had one primary assignment, viz. to force the passage to the Malian Gulf in order to re-establish contact with the army and eventually to land troops to attack Leonidas from the rear in case the army failed to crush him and force the pass of Thermopylai; and also the even more essential, but at this juncture secondary, one to make sure that no Greek ships should escape. This fleet had now sustained severe damage in the storm off the Magnesian coast, culminating in the loss of between 200 and 300 ships (see above, p. 43) and more or less heavy damage to many others. As long as the primary assignment had not been carried out (or made redundant by the success of the army), it could not afford to detail 200 triremes, presumably undamaged and with more than average crews, and send them along an unfriendly coast with a mission of more than doubtful usefulness at this stage of the campaign. If no soul in the Greek fleet was to escape, i.e. all its ships were to be destroyed or captured, this was the wrong time and the wrong place for that endeavour. For the Greek fleet at Artemision did not in fact comprise all the Greek

ships, nor had the Persians any reason to think so.[28] Sending the 200 ships could therefore have no useful purpose and was moreover likely to prejudice the accomplishment of the fleet's primary task. In this case Hignett was surely right to reject the tradition (1963: 392).[29]

Hignett typically rejected not only the squadron of 200, but also Herodotos' representation of the Persian objective in sending it because according to him 'it cannot be taken seriously and recalls the similar motive attributed to Xerxes before Salamis by Aeschylus' (*ib.*, p. 390, referring to *P.*361–71). This is of course a most unsatisfactory and ill-considered judgment. What Aischylos tells us in the passage at issue (and is confirmed by Herodotos: VIII 75.2) implies that Themistokles had a clear conception of what was the Persian objective, i.e. of the rationale of the manoeuvres of the afternoon, and on this ground expected his message—that the Greeks were on the verge of taking to flight in all directions—to change the dispositions of the Persian command. We have found reason to think that Themistokles' conception was right, hence there is no reason at all to disparage it as something merely 'attributed to Xerxes.' For the reports of both our prime authorities on the measures provoked by the message prove that it was successful. Therefore 'the motive attributed to Xerxes before Salamis by Aeschylus' must surely be taken seriously. But if it is, we must also take seriously 'Herodotus' representation of the Persian motive in sending <the squadron of 200> regardless of the historicity of this squadron. The sending of these

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[28] They surely must have known, or at any rate strongly suspected, that the Greeks had more ships than the 271 laying in wait for them (see for the numbers Beloch 1916: 64 and Burn 1962: 382–83).

[29] Hignett suggests that this tradition may have grown out of a misunderstanding of something that actually happened. This is plausible enough: the disorganization that had been caused by the storm required emergency measures which may well have included the (conspicuous) movement of numbers of ships (see above, p. 39), around Skiathos for instance, to search for extra rowers, movement which could readily be misunderstood and about which the Greeks were bound to speculate anyhow, as I believe was done by the diver Skyllias (VIII 8.3). For a recent defence of Herodotos' 'report', doubtlessly the best sofar, see Bowen 1998: 361–63: it makes very clear how ill-considered the circumnavigation would have been, had it truly been undertaken. Bowen's reliance on Herodotos VIII 9 for accepting its historicity is inconsistent with his own reasonable doubts 'whether the Greeks saw them <the 200 ships> depart'.

ships must be considered a fabrication of Greek armchair strategists provoked by the contradictory traditions about the Persian losses, but based in the first place on the correct evaluation of or, rather, reliable information about Xerxes' strategic aim regarding the Greek naval arm, which was naively supposed to be actively pursued already in this early stage of the hostilities.

CHAPTER SIX

THE SEIZURE OF PSYTTALEIA AND THE PERSIAN PLAN OF ATTACK

Modern assessments of the tradition concerning Salamis and the reconstructions of the battle may be very varied, but there is one notable point of resemblance: the battle is almost always taken as a purely naval affair in conception (if any) and execution, in accordance as it were with the prescriptions of a naval staff handbook. This is almost literally true of the discussion by Werner Keil with its systematic distinction of *Einkreisungs*—and *Begegnungsschlacht*,[1] but the same approach dominates the whole field, even when the terminology is different. In the foregoing I have repeatedly suggested another approach. The situation in the Strait is indeed such as to make a combined operation an obvious possibility, to say the least. In any case there is an aspect of the Persian action that can hardly be explained otherwise than as part of the plan for such a combined operation. The victory of the Greeks—the people to whom we owe all our information concerning the battle—no doubt has had as one important consequence that practically no memory, let alone understanding, of the parts of the Persian plan of attack that failed to be executed has been preserved, and this is doubly true of the Persian plan for the follow-up of the victory in the naval battle in as far as it was a purely naval affair. Still, we must assume that the Persian staff had such a plan and consider its possible implications for the whole operation. One part of it that *was* remembered (for obvious reasons) and which the Greeks utterly failed to make sense of, is the Persian seizure of Psyttaleia.

Concerning this episode Herodotos is our only source with a complete, be it bald, report. He makes the seizure a consequence of Themistokles' message: a large[2] number of Persians was landed on

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[1] Kromayer (1924: 64–106). This Keil revealed himself to be the writer in *Klio* XIX (1925), 475 (cf. Wilhelm 1929: 1f.) and must not be confused with another writer on Salamis, J. Keil (1938).

[2] Large presumably in relation to the size of the island.

the island during the night with orders to deal with the shipwrecked of the battle, rescuing their own people and finishing off enemies (VIII 76.2). While the battle raged, these Persians were attacked by Athenian hoplites, who had been posted along the shore of Salamis and were set across on the initiative of Aristeides.[3] They were butchered to the last man (VIII 95). Aischylos' version (*P.*447–464) is very different. His account dissociates the Greek attack from the battle and seems to make the whole episode follow it; the relationship with the battle is respected, i.e. the Persian occupants have the same task as in Herodotos, but the importance of their destruction is much amplified: this calamity is said to be more than twice as grievous (!) as that of the battle itself (*P.*437). Aischylos, moreover, represents the occupants as the cream of the Persians, both physically and in nobility of spirit and lineage, and hence in loyalty to their king (*P.*441–443).[4] On the other hand the poet implies that the Greek attackers were not at all only hoplites: stones are thrown, arrows are shot (*P.*459–461) and only in the last instance the bloody work of hoplite weapons is mentioned (*P.*463). It is a striking feature of their reports that Aischylos and Herodotos both imply that the Persians did not fight.

Incidentally, the great difference in emphasis between the reports of Aischylos and Herodotos has been explained by Hignett, who condemns the former's account as 'much exaggerated,' as motivated by the desire to let hoplites have their share in the glory of the Greek triumph (1963: 238). There may be some truth in this, but if only because precisely in Aischylos' account there is no question

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[3] Aristeides' initiative has induced Bury to suggest that it implies that he held an official position, to wit that of *strategos* (1896: 414ff. esp. 418; endorsed by Grundy 1901: 389n., Macan at Hdt.VIII 79, How 1926: 262, Beloch 1916: 142, Burn 1962: 454 and Hignett 1963: 238 and n.2). This may be possible, but to my mind the way Herodotos tells the story rather suggests an improvised action of volunteers, as does Plutarch in his Life of Aristeides (9.1: cf. the comments of Calabi Limentani), Aristeides being accepted as volunteer-commander thanks to his past prestige, not on the strength of an official position none of our sources so much as alludes to. Bury's suggestion is rightly rejected by Fornara (1966: 51 n.4), whose attempt to dissociate Aristeides from the action altogether and to disqualify Herodotos' account of it 'as an historical fiction' I consider badly misconceived.

[4] Aischylos' ψυχήν τ' ἄριστοι κεὐγένειαν ἐκπρεπεῖς corresponds exactly with Herodotos' ἄριστοί τε καὶ γενναιότατοι in his description of the king's bodyguard, the Thousand (VII 41.1). Aischylos' αὐτῷ τ' ἄνακτι πίστιν ἐν πρώτοις ἀεί is of course implied in the exalted position of the Thousand and in the way they are recruited (Hdt.VII 83).

of the exclusive right of the hoplites to this triumph the motive would seem to be less a matter of hoplites versus the men of the fleet than of personal involvement. Aischylos may well have been among the hoplites stationed along the shores of Salamis and even have participated in this attack, a fact (if it is that) he characteristically keeps silent about. As there is another occasion where he signalizes the participation of Salamis-based fighters in the sea-battle (see below, 123ff.), which is entirely ignored by Herodotos (and so presumably by Herodotos' informants), we may perhaps ascribe to Aischylos the private desire to preserve and to enhance the memory of these lesser feats.

In the past the elaboration in Aischylos' story has been treated with scepticism, sometimes excessively so[5] and there certainly is reason here to distinguish between what Aischylos had seen for himself (or heard from eye-witnesses) and the reactions of Xerxes he had to invent (however plausibly) because he nor any other Greek could have certain knowledge about them.[6] However, the strange thing is that the idea Herodotos and Aischylos share—the supposed task of the Persian occupying force—has not met with any doubt. Still, this is the crux of the matter. Rescuing one's own people was of course very desirable, but for that purpose the island was not the right location[7] and the stationing of elite soldiers not the obvious method. Herodotos' assertion that the island was chosen because it lay in the path of the future sea battle (VIII 76.2) clearly is no more than a

[5] Thus Burn, who seems to think that the panic-stricken reaction Aischylos ascribes to Xerxes on being told that his men on Psyttaleia had been slaughtered is an exaggeration of the same order as his making the butchered Persians members of the Persian elite (1962: 467, cf. Hignett 1963: 238). Tarn indeed discredits almost the whole episode, even Herodotos' many Persians, because 'the whole thing is so difficult that one is sorely tempted to believe . . . that the only contribution made that day by the just Aristides to the cause of the Greek freedom was the butchery of a few shipwrecked crews' (1908: 226).

[6] I very much doubt if there were Greeks in the immediate entourage of the king during the battle and even more that Aischylos could have questioned them.

[7] There is in fact no indication in the record that fighting ships of either fleet came near the island during the battle, and this must have been in accordance with the Persian expectations. As Herodotos stipulates that the action on Psyttaleia started while the battle raged (ἐν τῷ θορύβῳ τούτῳ τῷ περὶ Σαλαμῖνα γενομένῳ), there is no place for the idea that the fleet that had won Salamis surrounded the island and that the assault on the Persians was made by the crews of the vessels, as was suggested by Blakesley and Rawlinson (see Macan at VIII 95.3) and recently by Fornara (1966: 51–3).

guess,[8] just as the order to kill off the Greek shipwrecked, which makes no military sense whatsoever. The assignment of these tasks to Persian aristocrats is therefore doubly unbelievable. Broadhead suggests that the seizure of Psyttaleia 'could well have been part of Persian strategy' (1960: 332) without in any way attempting to elucidate this sensible suggestion which he owes to Cahen (1924: 309), but simultaneously asserts that the seizure 'at the same time would serve the subsidiary purpose . . . of rescuing Persians and killing Greeks.' Still, he pretends to take seriously Aischylos' testimony that the Persians were of noble birth, characterizing this datum as 'such excellent dramatic material <that it> was worthy of separate treatment.' He then knocks the bottom out of his own assessment by allowing 'that Aeschylus has exaggerated the importance of Aristeides' exploit and has adorned the tale with some embellishment,' and comes to the lame conclusion that 'there seems no reason for doubting that Persian troops <not such excellent dramatic material!> were landed on the island' (*ibid.*).

Surely this is pussyfooting. If the Persian occupiers were aristocrats, which I see no reason to doubt as they must have been recognizable as such by their accoutrements, the seizure can only be explained as part of a plan, a strategy, in which their employment makes sense and of which the Greeks naturally were entirely ignorant (and remained ignorant since they killed all the possible informants). This plan therefore we must try to reconstruct. Macan (at Hdt.VIII 95) was alive to this and his reconstruction, though it is incomplete and ignores the Persian nobles, is an important step in the right direction. According to him 'the occupation of Psyttaleia probably had as its ultimate object a landing on Salamis, and an assault upon the Greek forces in the island.' The fact that the Athenian hoplites who attacked the occupiers had been posted along the shore of Salamis 'shows that the <Greek> generals perfectly understood the situation: just at that point, where the Greek right wing was posted, a success, even temporary, on the part of the Persians, would have led to an attempt to land from Psyttaleia upon Salamis (Kynosura), from which it would have been difficult to dislodge the enemy.'

[8] Unless by 'sea battle' he means the entire combined operation here envisaged, in which Psyttaleia could be considered to be the geometrical (not the tactical!) pivot. I consider this very improbable.

Macan did not work out the part to be played by the occupants of Psyttaleia, but it is easy to see what it was and how they were to be put in the position to play it. 'A success, even temporary' on the Persian left wing would release the squadron guarding the exit at Cape Kinósoura from its task, so that it could forthwith proceed to land troops on Kynosura, its own marines in the first place,[9] but then also troops standing by on the neighbouring shores. The task of these troops must have fitted in the general tactical plan of the Persians—to prevent the escape of Greek and especially the Athenian ships—and will have had as their primary assignment the disruption of attempts at the embarkation of families.

With such a plan it was of course of the greatest importance to have the troops as near at hand as possible, hence the seizure of Psyttaleia. It is true that this in itself does not explain the Persian nobles: any Persian troops could have been used and if Pausanias (I 36.2) had a good source for his assertion that the Persians killed numbered 400, ordinary soldiers may well have been among the occupiers. Still, in this particular situation, the planned sea-battle being expected to be decisive, also for the short-term chances of noble Persians to distinguish themselves, a clamour of these men to be given a chance to come into action under the eye of their king is only to be expected.[10] Such noble warriors, on the other hand, were not likely to serve as marines, so their only chances were in this arena, which for that matter need not have been judged inferior to that in Salamis Strait.

As already pointed out, there is something odd about the reports of both Aischylos and Herodotos on the Psyttaleia rout in that the Persians do not fight. If this is more than a simple omission in the tradition (eventually to be explained by the immensely greater importance of the sea battle), the fact thus revealed could be that the Persians in question were not a regular military formation and perhaps also that they were too lightly armed to try to resist a serious attack by heavy-armed infantry. This may perhaps be taken as

[9] For this purpose this squadron could have taken on board a number of soldiers detailed for these landings. I would suppose that its ships did not need full rowing complements anyhow.

[10] Likewise the men in the second line in the Persian fleet: they tried to push to the front at any cost to make their mark before the king's eyes and thus made the chaos in the Persian battle line worse, if they did not cause it (Hdt.VIII 89.2).

confirming Aischylos' representation of them as a group of high aristocrats.

There is perhaps another indication for this aspect of the Persian plan of attack. Aischylos begins his account of the Salamis débâcle by relating the fate of Artembares, a very high cavalry commander. His body is said to be 'smashed along the rocky shores of Sileniai' (*P.*302–303). According to a scholion this was a part of Salamis near the *tropaion.* In his study of the topography of the battle Wilhelm has suggested that this toponym, like others on and near Salamis, has been maintained since antiquity.[11] The bay immediately south of the attachment of the Kynosura 'tail' is now called Órmos Seliníon and a village (?) Selínia[12] is nearby on its coast. If this identification is accepted,[13] the question arises how Artembares' body landed in that spot. It does not seem very likely that the set of a current was in that direction or that easterly winds carried him there. According to Herodotos wreckage drifted ashore near Cape Kolias to the south-east of Phaleron after the battle (VIII 96.2). His explanation—that a west wind/Zephyros was the cause—need be no more than conjecture, other winds being out of the question, but if it is correct, we have no reason whatever to assume that Artembares' body floated from, say, Ísplous Kinósouras to Sileniai, let alone that the man was one of the occupiers of Psyttaleia. That is to say that Artembares' fate could hardly be other than the result of a stray action, not improbably an act of despair, by a (or *the*) commander of e.g. the squadron guarding Ísplous Kinósouras, who in the face of disaster had come to the conclusion that he had to carry out his orders by trying anyhow to land on Salamis, and met his death in the attempt.

It is of course impossible to be more specific about the case of Artembares, and even the account I have offered will be considered all too speculative. What makes it important in spite of the uncer-

[11] Wilhelm mentions Talandonísi, the ancient island of Atalante west of Psyttaleia; Koúlouri, now Salamís village (1929: 30). One could add Lipsokoutála (= Psyttaleia), which has been convincingly explained by Burn as 'derived from a medieval Frankish "Le Psouttáli", or the like' and further licked into shape by popular etymology (1962: 473–474).

[12] These are the names of Admiralty Chart 894. The *Pilot* has 'Sileniai bay' as well (p. 138).

[13] For the problem of the localization of the Salamis trophy <on Kynosura> and of Sileniai see the discussion by Wallace 1969: 299ff.

tainties is that, together with the much clearer case of the seizure of Psyttaleia, it suggests that the Persian forces stationed in the area of Psyttaleia-Kynosura were no mere ancillaries to the battle order, but were meant to play an active and vital part themselves in a wider Persian battle plan. That nothing came of the actions projected in this plan must not lead us to neglect the indications preserved by the Greek witnesses. They strongly suggest, if they do not prove, that the Persian staff were not tied to a simple naval handbook scheme.

CHAPTER SEVEN

THE QUALITY OF THE SHIPS

Regarding the quality of the Greek and Persian triremes we owe to Herodotos unmistakable information which goes back directly to Themistokles. In arguing against the desire of the Peloponnesians to let the Greek fleet take up a position near the Isthmos he is said to have insisted on two points: that the Greek ships were heavier (βαρυτέρας) and fewer in number (VIII 60α), 'heavier' no doubt meaning slower and less manoeuvrable. The disadvantage to the Greeks of the open waters at the Isthmos and the advantage of the narrow waters of Salamis Strait are later stressed in the same context (60ß init.) on the basis of the numerical argument alone.

The difference in quality thus emphasized is of course not unexpected and was indeed taken for granted by the crews of the Persian ships (VIII 10.1). As already argued (p. 9ff.), the Greek triremes had for by far the most part been built by and for *poleis* that had never before possessed the type. Even if there was no great difference in building technique between triremes and naval pentekontors, and I am convinced there was not, the increase in scale may well have caused problems which had to be solved in a makeshift fashion with consequences for the quality of the ships.[1] However, our sources have nothing whatever to say about what made the Greek ships heavier. Hence attempts like that of *AT* to extract a cause from the record in a roundabout way and without detracting from the competence of the Greek trireme-builders.

Under the heading 'Types of triremes' the authors discuss 'the distinctions between the performances of different triereis' in our principal authorities for the year 480. Aischylos distinguishes between the aggregate of 300 ships for the Greek fleet and a group of 10 ships called *ekkritoi* included in the 300.[2] Morrison c.s. take *ekkritoi* to

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[1] Experienced trireme-builders will have been available in Corinth and in Eretria and there may have been exiles (Milesians?) in Athens who knew something of the specifications of a Persian trireme.

[2] For the validity of this treatment of the number see above, II n.7.

mean 'outstanding' without specifying what could have made them stand out.[3] Again, Aischylos total for the Persian fleet is one thousand, in which number 207 especially fast ones are included. Herodotos does not make these distinctions (and his figures for both fleets are different), but stipulates that of Xerxes' fleet the (300) Phoenician ships were the 'best movers in the water' (ἄριστα πλεούσας: VII 96.1). Herodotos does not single out especially fast ships in his two accounts of the Greek fleet (VIII 1–2.1 and 43–48), but after Artemision he relates that Themistokles took the best moving ships in the Athenian fleet on a special mission that had to be accomplished while the rest of the fleet proceeded directly to the waters of Salamis (VIII 22).

According to Morrison c.s. two different ratings are in question here. In one case 'the rating rests on specific inbuilt characteristics of the hull, i.e. that some ships are built to be faster than others' (for this possibility see below, p. 103); in the other 'the better performance or greater heaviness derives from some other factor which affects all the ships in the fleet.' This other factor they identify in the case of the heavier Greek ships as the lack of cleaning of the bottom of the ships and of drying them out. At Doriskos, their first rallying point after Kyme-Phokaia, the Persians had hauled their ships up on to the beach and dried them out (VII 59.3). No such treatment being recorded for the Greek fleet and assuming with Hammond (quite unbelievably) that the Greek fleet had in large part been mobilized since autumn 481 and 'constantly on the look-out for an attack', Morrison c.s. infer that the commanders of this fleet would not have been able to risk immobilizing their ships during the time needed for the maintenance operation.

However, the inference is invalid. The fact that Herodotos nor any other source speaks of the drying out of the Greek ships need of course not mean at all that it was not done. In all the traditions about operations of the Athenian navy there is only one mention of drying out, to wit in Nikias' letter of winter 414–413 BC to the Athenian assembly, written from Syracuse, where he complains that his ships were sodden and could not be dried out because of the constant threat of enemy attacks from very nearby shores over a

[3] I very much doubt if *ekkritos* here has the very positive meaning of 'outstanding': Hall in her commentary at 340 convincingly translates 'selected separately', that is to say that the ten were an operative unit, reserved for emergencies and/or a special task.

long period (Thuc.VII 12.3). No such disastrous conditions prevailed at Artemision: the hostilities there started immediately after the arrival of the Persian fleet at Aphetai to continue for a few days only; before its arrival the Greeks had had time enough to dry out their ships, which for safety's sake could have been organized in relays. In his letter Nikias of course implies that in more favourable circumstances drying out was routine.

The view of Morrison c.s. that lack of maintenance/drying out of the ships must have been the decisive factor in Themistokles' negative assessment of the Greek ships, in other words that their quality when adequately maintained was at least comparable to that of their Persian counterparts, is also based on two other traditions, both preserved by Plutarch. In his biography of Kimon (12.2) Plutarch relates that in the preliminaries of the campaign which culminated in the battle of Eurymedon (early sixties of the fifth century) Kimon started out with 200 (or 300)[4] triremes 'which <in AT^{2}'s rendering: p. 153> *had been originally very well built by Themistocles for speed and easy turning* and which he had then made broader and given a (greater) deck span so that they might proceed against the enemy with the greater fighting power exercised by many hoplites.' Morrison c.s. continue: 'There is the implication that so modified they were slower and less easy to turn. If these were in fact the triereis built by Themistocles, they would have been ready for conversion to troop-carriers. This is what Cimon appears to have done.' Elsewhere in *Athenian Trireme* the authors sharpen this interpretation of the words I have italicized to 'specially designed by Themistocles for speed and quick turning' adding that this 'suggests that he had his own ideas of trieres tactics' (p. 2, cf. pp. 53 and 61).

In this perspective the other Plutarchean datum advanced by Morrison c.s. in this context is made to confirm that there was no great difference in speed and agility between the Persian and at least the Athenian triremes. In their translation the passage in the *Life of Themistokles* (14.3) reads as follows: '<Themistokles> seems to have been as much aware of the right time as of the right place [to start an engagement], and to have been careful not to send his triereis in to attack the enemy ships until the moment arrived which usually

[4] Both figures have manuscript support. Thucydides (I 100.1) has no figure, Diodoros 200 (XI 60.3).

brought a stiff breeze from the sea and a swell through the straits. This did no harm to the Greek ships, which were nearer water level and lower, but did affect and confuse the enemy's ships with their towering sterns and high decks, and offered them broadside to the Greeks, who were in fact bearing down on them and keeping an eye on Themistokles as he was watching for the right time to make his attack' (*AT*[2] p. 154).

However, the whole of this amazing construction must be rejected. Plutarch's story about the breeze from the sea has been exposed time and again[5] as absolutely incredible. The case has been argued convincingly by Frost (1980: 154), who insists that 'it is impossible to predict weather with any degree of certainty anywhere in the Aegean' and reasonably proposes to attribute the story to later enthusiastic embroiderers of the Themistocles romance who took Phormio's celebrated stratagem (Thuc.II 84) as their model. Another, even more cogent reason to reject the story is its incompatibility with the description of the beginning of the battle of Salamis by both Aischylos and Herodotos (see below, p. 115ff.). Also, Plutarch's specification of the Greek and Persian ships is clearly of Hellenistic-Roman inspiration, echoing his own description of the fleets of Antony and Octavian at Actium (cf. *Life of Antony*, 62.2).[6]

On the other hand, the interpretation of Kimon's modification of Themistokles' triremes offered by Morrison c.s. is a more serious problem and deserves detailed consideration. To begin with it is necessary to take into account that Plutarch's information, as always in the *Lives*, is taken from many sources: in this chapter alone three are expressly mentioned[7] while Thucydides, though not named, is also used. This means that the provenance of this particular tradition is uncertain: succeeding authors may be involved and as many sources of misunderstanding and error. There are several elements in Plutarch's text that must make one pause, as an expanded translation will make clear: 'Kimon started out from Knidos and Triopion

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[5] See for instance Munro 1902: 330; Tarn 1908: 208 n.28; Hignett 1963: 233 and Lazenby 1993: 186.

[6] In the sentence following the passage just discussed Plutarch alleges that the Persian admiral confronted Themistokles' trireme with a 'big ship', again a distinction common in Hellenistic fleets, but absent in the trireme fleets of the fifth century.

[7] The three are Ephoros (*FGH* 70F92), Kallisthenes (*FGH* 124F15) and Phanodemos (*FGH* 325F22).

with 200/300 triremes: regarding speed and manoeuvrability these ships had been originally very well <from whose viewpoint?> fitted out by Themistokles. Kimon however at that juncture made them broader <or flatter?> and furnished them with a bridge between the decks, so that having room for many hoplites <not: marines/ *epibatai*!> they would appear more battle-ready when attacking the enemy.'

One interpretation of this text, proposed by two eminent scholars, must be put out of court at once. It is in no way to be taken as representing Kimon's ships as 'a new type of trireme.'[8] There can be no doubt that Kimon's triremes were built by Themistokles and that their moving qualities were entirely acceptable, i.e. in Kimon's, or an historian's, judgment: this is expressed by 'very well designed.' Such translations as 'specially designed' (*AT*[2] p. 2) and 'built particularly for speed' (*SSAW* p. 87 n.55) take more out of ἄριστα κατεσκευασμέναις than is in the words. Nor can 'a tradition that the Athenian ships at Salamis were built by Themistocles for speed and agility in turning' as 'the outcome of deliberate design' (*AT*[2] p. 53) be inferred from Plutarch's words, let alone a 'theory which saw the ship primarily as an oar-powered machine for ramming and sinking the enemy' (*GOS* p. 163). As I shall explain in Ch. VIII, the record of the fighting in 480 shows that there was no question then of such sophisticated tactics as were developed by the Athenian navy during the decennia following Salamis and taken for granted by Thucydides in his descriptions of the fighting of just before and during the Peloponnesian War (e.g. I 49ff.; II 83ff.). Hence there is no basis for the proposed 'theory'.

As to Kimon's modifications, Meiggs not unreasonably assumes that he was expecting a different pattern of operations from those of the seventies with more fighting on land, hence the need for more hoplites. To my taste, even this presupposes too much system behind this incidental piece of information: we cannot know if the operations of the seventies developed according to a pattern and even less if Kimon's alterations inaugurated a new one conforming to the 'opposing theory' ascribed to him by Morrison (*GOS* p. 162). I would go no further than to assume with Meiggs that Kimon anticipated

[8] Thus Meiggs (1972: 76) and in the same vein Eduard Meyer: '200 Schiffen . . . die den themistokleischen an Schnelligkeit und Manövrirfähigkeit nicht nachstehen' (1899: 5).

(more probably planned) an operation to which hoplites would make an important contribution and in which they would have to be brought to the battleground on land by the triremes. For this reason the triremes had to be made more spacious, not only to have room for many men, but also more room for them to move on the decks, so that they would be seen by the enemy in all their threatening readiness in whatever way the ships approached the coast.

What exactly Kimon's alterations were is not easy to say. They made the ships wider or flatter. As it is unthinkable that widening extended to the hulls of Themistokles' triremes,[9] if widening is really meant this can hardly have been more than some deceptive optical impression. It seems therefore better to start from the other meaning of *platys*: making a ship, i.e. the deck, flatter, more of a continuous expanse, might indeed be accomplished by fitting a connecting floor (*diabasis*) between the existing decks, transversally if these decks were gangways parallel with the ship's boards, longitudinally if they were platforms fore and aft, as is mostly assumed. One could then construe the sentence as follows: 'he made the ships flatter, i.e.[10] he furnished them with connecting floors between the decks.'

As noted, Morrison c.s. suggest that Kimon's alterations made the Themistoklean triremes, then some fifteen years old, into troop-carriers, a category of triremes to which they also assign the ships of the Persians in the battle of Salamis. They do this on the basis of Plutarch's yarn exposed above, which in their view emphasizes an important characteristic of the ships of the Persian fleet 'all of which were built to carry 40 soldiers on deck as opposed to the Athenians' 10'.[11] Morrison even categorically asserts that 'Forty is the regular

[9] Thus rightly Lazenby (1993: 83), who objects that this would have meant rebuilding the ships from the keel up.

[10] I take καὶ in καὶ διάβασιν τοῖς καταστρώμασιν ἔδωκεν as epexegetical.

[11] The view that the Athenian triremes that fought the battles of Artemision and Salamis had 10 soldiers on board is an extreme one and lacks support in the sources. Herodotos is vague on this point; in fact the only ancient source to give a figure is Plutarch (*Life of Themistokles* 14.2) who asserts that the Athenian ships in the battle of Salamis had 18 'fighters from the decks' on board, four archers and the rest hoplites, an anomalous number that understandably has aroused suspicion (see e.g. Lazenby 1993: 186), but is no less probable than others. The *Decree of Themistokles* (ML 23 l.23–26) prescribes for each ship ten *epibatai* and four archers, but—quite apart from the general problems connected with this document—this particular detail, dating anyway back to several months before Salamis, 'is not really evidence for what actually happened' (Frost 1980: 153).

number of hoplites carried by triereis acting as troop carriers (*hoplitagôgoi, stratiôtides*) in the later fifth century' (1991: 196), thus repeating the assertion in *AT* that forty soldiers—i.e. 30 additional to the 10 normally on board[12]—was the maximum capacity of a transport trireme (*AT*[1] p. 225, *AT*[2] p. 226). On this view, the transport trireme was a converted 'fast' trireme like the horse transport.

However, a definite class of trireme of this nature is entirely absent from the ancient record. It is a construction based on mere assumptions, some refuted in the preceding pages, others of a technical nature (regarding the room on the triremes' deck) and in themselves no doubt deserving respect, but not so as to make the construction convincing. Also, counterindications are ignored or rejected without argument. The fact is that in our sources triremes with 40 (or 44) soldiers on board—i.e. the Chian ships at Lade and Xerxes' ships (Hdt.VI 15.1 and VII 184.2) are *never* called *hoplitagôgoi* or *stratiôtides*,[13] while in the cases where the number of soldiers on board of triremes with one of these epithets is specified (by Thucydides), it is far greater. The Athenian expeditionary force bound for Syracuse in 415 consisted of 134 triremes and 2 pentekontors (Thuc.VI 43). One hundred of the triremes were Athenian, sixty of which are called fast and 40 *stratiôtides*; the other 34 were furnished by Chios and the other allies. Some of the latter will also have been *stratiôtides*, possibly in the same proportion as in the Athenian contingent, e.g. about 14. This fleet took on board 5100 hoplites and 1300 light-armed soldiers. As a number of these men must have served as marines,[14] the net number of soldiers to be transported in the 54 or so *stratiôtides* will have been some 5300, about one hundred in each transport. In summer 413 a second fleet of 73 triremes brought 5000 hoplites and a large (unspecified) number of javelin-throwers, slingers and archers (Thuc.VII 42.1). On the preceding calculation this would mean that most of these triremes must have been *stratiôtides* with again up to 100 soldiers on board. Finally, in autumn 412 a fleet of 48 ships,

[12] This calculation takes 'soldiers' for hoplites and omits the four archers normally on board of Athenian triremes. The 30 extras on Xerxes' triremes were Iranians, hence probably all archers.

[13] Significantly Morrison does not even try to give examples.

[14] Thucydides expressly distinguishes 700 heavily armed *thêtes/epibatai*; 400 of his 480 archers, 80 being Kretan mercenaries, will have been Athenians who also served on the ships.

some of which according to Thucydides (VIII 25.1) were *hoplitagôgoi*, proceeded from Athens to Samos carrying 3500 hoplites, for which some 35 transports would seem to have been needed.

As there is no ancient evidence to the contrary and as the quality of our source is beyond all suspicion, there can be no doubt whatsoever that *hoplitagôgoi/stratiôtides* had this transport capacity and that the thirty/forty of Morrison c.s. is without any foundation. Still, if one of the premisses on which it is based—viz. that a trireme only had room for passengers on the afterdeck and on the canopy (*AT*[2] p. 226)—has any value, Thucydides' information presents us with a serious difficulty, for if the decks were packed with 30 they would be overcrowded indeed with 100 passengers (not to speak of the logistic and hygienic problems caused by such a crowd, especially on long journeys like that from Athens to Syracuse!).

Now Morrison c.s. base their analysis of this problem on a premiss which indeed pervades and in my opinion vitiates all their thinking about the crews of triremes, Athenian or not. This is the dogma that triremes invariably had crews of 200 men, 170 rowers and the rest marines and the so-called *hypêresia* (officers and technical personnel). I have stated my reasons for rejecting this dogma elsewhere and have already referred to my alternative view that oar-crews were variable and sometimes reduced to fifty or sixty rowers (1993: 169ff. and above p. 40ff.), but it is relevant in this context to note that it is precisely in our information concerning the transport triremes that the inadequacy of the dogma and the connected construction becomes apparent.

In the first place, if the *stratiôtis* really was an altered 'fast' trireme like the horse transport, one would expect such a distinct category to appear as such in the Athenian Naval Accounts, just as the horse-transports,[15] but they are entirely absent there. Furthermore, when Thucydides describes the force bound for Syracuse in 415, he simply counts up the 60 'fast' triremes and the 40 transports to 'one hundred triremes', but keeps the one horse-transport apart (VI 43). This must signify that to him 'fast' and 'transport' triremes were not really (structurally) different. Triremes could of course carry many more passengers than the thirty or forty allowed by Morrison c.s.

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[15] For *hippêgoi* see for instance *IG* II[2]. 1627. 7, 241, 271; 1628. 160, 491; 1629. 76, 722, 804; 1631. 349.

provided a proportionate number of oarsmen made place for them. In this light it can hardly be a coincidence that Thucydides' *stratiôtides* had room for up to (if not more than) one hundred soldiers. Here the horse-transport is the clue. Triremes converted to horse-transports had 60 of the original 170 oars left. These 60 no doubt are identical with the thranite oars of the fast trireme, of which there were 62 according to the Naval Accounts (cf. *GOS* p. 270; *SSAW* p. 83f.). Clearly the zugian and thalamian oars, 108 in all, were sacrificed to create stabling for the animals.[16] If the same was done in the case of transport triremes, comparable room was available for passengers (of course without any need of much carpentry, i.e. without altering the ship in any radical way).[17] The loss of speed will have mattered no more than in the case of the horse-transports.

In Thucydides' third case of the use of *hoplitagôgoi* (VIII 25.1) his remark that 'some of the <48> ships were transports' implies that rather less than half this number could be called *hoplitagôgoi*. This evidently means that a sizable part of the 3500 hoplites were transported triremes still counting as fast, though their oar-crews must have been incomplete. These ships might perhaps also have been referred to as '*stratiôtides* rather than fast ships', the phrase used by Xenophon to describe a squadron of fifteen Peloponnesian ships, presumably carrying soldiers, which proceeded from Megara to Byzantion in 410 (*Hell.*I 1.36). This appears to imply that there was no structural difference between 'fast' and 'transport' triremes and that in fact the two categories formed a continuum with an uncertain dividing line between the extremes, the number of rowers making the difference. In the summer of 411 BC the crew of the *Paralos*, one of the Athenian state triremes which if any had a full complement, was transferred to a *stratiôtis* as a punitive measure and sent to Euboia on guard duty, a task for which a fast, fully-manned ship was needed (Thuc.VIII 73.2). This suggests that the *stratiôtis* in ques-

[16] For the horse-transports see the interesting and convincing reconstruction in *AT*[2] pp. 227–230 and fig. 70.

[17] One would expect that temporary facilities (flooring) were installed to enable the passengers to lie down. Thucydides mentions some cases where the troops to be transported, Athenian or other, rowed the ships that carried them (III 18.4; VI 91.4). This will have depended on the capacities of the soldiers and, perhaps even more, on the urgency of the troop movements.

tion either had a very small crew, the term being used here with that sense, or none at all, and that the term meant no more than 'reserve.'[18] Similarly, the 'fast trireme' definitely is not a category apart in the naval accounts; the term simply does not occur there.[19]

Therefore I conclude that the idea that there were 'types of trireme', different in speed and intended for different tasks, is not well-founded. Especially in the case of Themistokles' triremes, built as they were en masse and increasingly in a hurry, as Xerxes' plans became known, such differentiation is not to be expected. The 'best moving ships' used for a special assignment after Artemision (VIII 22.1) certainly need not be taken as confirmation. After three days of fighting, culminating in a set battle, many Greek—including Athenian—triremes had been disabled or at least damaged (Herodotos' account is almost certainly all too dramatic: VIII 16.2), so that differences in speed need no structural explanation. Themistokles moreover may well have reinforced the oarcrews of his chosen ships.

The Persian ships

Let me repeat that there is not the shadow of proof that transport triremes differed structurally from regular line-of-battle ('fast') triremes, let alone that there is any reason to range Xerxes' ships in such a category. There is the less reason to do so since Herodotos has preserved the precious testimony (VIII 10.1: surely going back to 'Ionian' informants, but ignored by Morrison c.s.) that the Persian crews and commanders trusted their ships to be better than the enemy's 'fast' ones, in this respect being in agreement with Themistokles.

In theory the superiority of the Persian ships may have been due to a number of different factors: better build, better (trained) rowers or more rowers. In practice however it is improbable that the

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[18] Morrison has inferred from Thuc.VIII 62.2, where among 25 ships there were '*stratiôtides* with hoplites on board' that this suggests 'that some of the ships might have been *stratiôtides* without actually carrying troops', an idea which I have supported (1993; 175), but share no longer as far as this passage is concerned. Thucydides may mean to stipulate that the ships did not carry light-armed troops (cf. Andrewes' comment on the passage quoted: *HCT* V p. 152).

[19] The synonym ταχυναυτοῦσα is once used to mark off two new triremes detailed as guard ships against pirates, a task for which full crews were required (*IG* II^2 1623.276ff.). There is no indication that the ships as such were in a class apart.

first two of these factors were operative here: for that the comparison is too comprehensive. Especially as long as it was assumed that the Persian navy consisted of the navies of the subject cities and states with their own tradition of shipbuilding (or lack of it), the assumption that better build was the decisive factor was implausible, the navy as a whole simply being too heterogeneous for such a denominator to apply to the whole of it. On the alternative hypothesis that most, more probably all, of the Persian ships had been built 'by the king', i.e. according to uniform specifications, the assumption is certainly possible, were it not for the fact that the tradition makes certain that the king's ships differed among themselves precisely in speed: not only were the Phoenician ships better movers than those of other states, but among the Phoenicians the Sidonians again were superior in this respect (Hdt.VII 96). The fourfold gradation this implies—Greek, non-Phoenician Persian, Phoenician and Sidonian ships—cannot in my view be explained by 'specific inbuilt characteristics of the hull, i.e. that some ships are built to be faster than others' (*AT*[2] p. 151), in the case of the king's ships a most improbable hypothesis.

The presumption of Persians and Themistokles alike that the Persian triremes had an edge over the Greek ones where speed was concerned is not easy to explain. The former may have based it in part on their success in eliminating the Greek advance guard in the Gulf of Therme (VII 179f.) and in part on no more than the expectation (shared perhaps by Themistokles) that the agelong tradition of their own fleet guaranteed its superiority over the brand-new ragbag of their opponents, whose naval force after all *was* a collection of *polis* navies! Within the king's navy on the other hand the superiority of the Phoenician ships must be explained in a different way. Here the long experience of the Phoenicians with life on the seas will have made their crews better trained and more efficient as teams than, say, the Cilicians or the Karians. And this is not to be considered as simply due to the rowers,[20] but as much, if not more, to the technical personnel summed up in the Greek term *hypêresia*.[21]

[20] This has been maintained by Whitehead in a recent study of the Athenian term 'better sailing ship' (1993: 91–94).

[21] In the Athenian navy of the fifth and the fourth century—the only one for which we have detailed information—the *hypêresia* comprised six named officers—*kybernêtês, keleustês, pentêkontarchos, proratês, naupêgos* and *aulêtês* (see *GOS* pp. 266–68;

Regarding the importance of this personnel we have a very eloquent testimony that formally applies to the Athenian navy in its prime, but no doubt is valid for the Phoenician fleet in Xerxes' forces too. When in 431 on the eve of the Peloponnesian War Perikles had spoken in reply to the Spartan ultimatum, he went on to put heart into his fellow-citizens by emphasizing Athens' superiority over its enemies thanks to its sea-power. In this context he strongly emphasizes Athens' having the disposal of steersmen and other members of the *hypêresiai* in superior number and of superior quality *who are all citizens*.[22] What is interesting here is that in expounding the superiority of the Athenian navy Perikles does not refer to the quality of the ships as such, nor does he mention the quality of the rowers as a decisive factor. As to the rowers he merely states that, even if the hired foreign rowers could be lured away by higher pay, Athens's own citizen and resident alien oarsmen still would be a match for them. He adds that the chances that the foreign rowers will defect for extra pay are small, because their own *poleis*—mostly in the Athenian alliance—will exile them, and above all because the enemy's higher pay will last a short time only (I 143.2). The implication is that it was the regular money income of the tribute that mattered: provided the financial advantage of the Athenian alliance over the Peloponnesian League could be maintained, rowers would always be available and by that token the Athenian thalassocracy unassailable.

The *hypêresiai* on the other hand were the really essential and irreplaceable personnel of the fleet. These teams had developed their skills during the decennia of naval activity after Mykale, not so much as a result of perpetual warfare as of the eight month training programme of the yearly patrols of sixty triremes Plutarch ascribes to Perikles' initiative.[23] Many rowers, citizens and non-citizens, will have learnt their trade in the same way and it must have been this collective experience on top of the guaranteed pay that dissuaded potential defectors among the oarsmen from taking the fatal step. As Perikles stresses, not only would their extra pay in the Peloponnesian

SSAW pp. 302–04; *AT*[2] p. 111)—and ten others. On the Persian triremes the situation no doubt was analogous, though the mumber need not have been precisely the same.

[22] Thuc.I 143.1: 'we have citizens (who serve) as steersmen and as the rest of the *hypêresiai* <i.e. the other *hypêretai*> in greater number and of better quality than all the rest of Greece.' On this sentence see Ros (1968: 203).

[23] *Life of Perikles* 11.4: see Meiggs 1972: Endnote 13 and Wallinga 1993 185 n.32.

service be of short duration, but the fortunes of war would be turned against them (Thuc.I 143.2).

Now if Perikles seems to take the rowers more or less for granted, the explanation may be that they were not all of citizen status, and so less relevant on this occasion. Still it seems more probable to me that oar crews did not make such closely knit teams as the deck-crews because of greater wastage, hence regular replacements, and therefore were not as evidently superior over eventual rival teams as were the *hypêresiai*.

Regarding the question of why these teams were so essential the tradition has preserved no clues. However, the sea trials of the reconstructed trireme Olympias may have provided the answer. The report on these trials, an excellent chapter in *AT*² (pp. 248–256)[24] makes clear how vital the *hypêresiai* must have been for the functioning of the system of 'command, control and communication under oar' and especially for the breaking in of newly made up crews. Coaching Olympias' rowers was 'initially accomplished by dividing the crew into six or eight sections, each coached by a team leader who clambered between gangway and canopy observing and instructing' (*ib.* p. 253). Although 'there is no evidence for such team leaders in antiquity' (*ib.*), the fact that there are ten members of the *hypêresiai* available for their tasks makes them a real possibility. Now on the traditional view that trireme crews were always full, as is emphatically maintained by the authors of *Athenian Trireme* (p. 107ff.), one would expect such crews to have become teams in the full sense of the term just as well as Perikles' *hypêresiai*, and by that token just as much the cause of Athenian superiority at sea. Perikles' reticence on their score would be strange on this view. If on the other hand crews were variable in number and often, if not as a rule (as I feel certain), below establishment and redistributed during operations in accordance with tactical and other requirements, it would be impossible to take their proficiency for granted, as in the case of the *hypêresiai*. Such redistributed crews will have needed coaching to become proficient (again).

Regarding the Sidonian ships it is probable that their exceptional quality, compared with the general run of Phoenician ships, must be considered in this perspective. I have already commented on the

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[24] See also the enlightening account of Rankov (1993).

privileged position of the Sidonian king in Xerxes' naval staff (above, p. 7f.) and assumed that the Sidonian fleet (or part of it) played the same role in the Persian naval organization as the peace-time patrols in that of the Athenian alliance. To be sure, this explanation can be no more than tentative for want of any direct data, but as no alternative has ever been proposed it merits serious consideration.

CHAPTER EIGHT

TACTICAL CAPABILITIES

One of the curiosities of the Greek tradition concerning the naval operations of the year 480 is that the difference in quality between Greek and Persian ships is noted, and of course the huge difference in numbers, but that next to nothing is said about the tactical capabilities of both fleets. This is the more striking as the ships of the Greek allies were for the most part newly, and even very newly built.[1] Built, moreover, for the most part by *poleis* without any experience whatsoever with the trireme, the type that had suddenly become dominant in the Greek naval establishments, not to speak of fleets of triremes. One would expect therefore that the Persian navy, which by 480 had a tradition of half a century (since before 525 BC: Hdt.III 19) and at least one great victory to its credit, would have learnt by that experience (which was not wholly positive)[2] to develop tactical concepts in advance of those of the Greek beginners.

Still, even the man one would expect to have pondered this problem and who certainly is considered to have had deep tactical insight, Themistokles, reputedly based his own tactical, and indeed strategical, views and proposals almost exclusively on the numerical superiority of the Persians.[3] Certainly no remark on their tactical capabilities is ascribed to him and that this is not due to chance is implied in Herodotos' description of the fighting at Artemision. There the Persians are said to be superior for Themistokles' reasons only

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[1] Especially the second hundred built by rich Athenians: see above, I n.41 and Wallinga 1993: 162f.

[2] It included at least one defeat suffered by the fleet which was part of the expedition sent to reconquer Cyprus during the Ionian revolt (Hdt.V 112.1). However, Hignett's judgment that 'the history of the Persian navy since its creation had been inglorious' (1963: 92) is much too negative. The defeat just mentioned in no way prevented the reconquest of Cyprus and the navy's earlier contribution to Kambyses' Egyptian expedition may well have been important (if so, this escaped Herodotos). Also, Hignett reckons only with actual fighting, as if a navy had no other raison d'être.

[3] I presume that the superior quality of the Persian ships (Hdt.VIII 60α) was no more than an additional factor in his calculations.

(Hdt.VIII 10). It is of course true that Herodotos was told that the Greeks at Artemision expected the Persians to practise the *diekplous*:[4] their first very prudent attack was made to test the Persian way of fighting, and especially of handling this manoeuvre (VIII 9). The actual fight however developed in a very different way and the *diekplous* is not mentioned again, nor implied, in descriptions of the operations for the duration of the war by Herodotos, or any other author. This means without any doubt that the *diekplous* played no part whatsoever in any one of the fights of this year, i.e. that Persians nor Greeks had mastered this skill.

As far as the Greeks are concerned this had already been convincingly argued by How in his essay on 'Arms, tactics and strategy in the Persian War' (1928: 410ff., esp. 412). How thought that 'it would, indeed, have been almost a miracle if the Greek fleet at Artemision and Salamis had been capable of such manoeuvres. Far the strongest contingent in it, the Attic navy, was in the main a creation of the last year or two, so that its crews could not possibly have had the long practice necessary . . . while the best Peloponnesian sailors were half a century later still content with the now old-fashioned boarding tactics.' How clinched this argument, in itself strong and even stronger if the huge cost in rowers' pay of regular training is taken into consideration, with the observation that both Greek and Persian successes at Artemision consisted of ships captured, stressing that the thirty additional marines (see above, II n.35) on the Persian ships also signify 'that boarding <was> regarded as the regular mode of attack.'

[4] On the *diekplous*, a tactic requiring great speed and manoeuvrability for which ships were ordered in line abreast, see Wallinga 1956: ch.V; Lazenby 1987: 169–177. A very different, and to me absolutely unacceptable, hypothesis about the manoeuvre has been framed by Morrison (1974: 21–26, cf. *AT*[2] p.42–43, 59–60. For criticism of this hypothesis see Lazenby's paper just mentioned and Wallinga 1990: 141ff. Morrison's answer (1991) to Lazenby's criticism as voiced in the latter's review of *AT*[1] (1988: 250) is as unconvincing as his original paper and marred by a string of very doubtful interpretations, especially of the expression ἐπὶ κέρας—'in file'—in Herodotos (VI 12.1). Possibly the Greeks based their expectations as to the Persian tactics on oral tradition about the battle of Lade, which Herodotos missed or rejected: he only knows about Ionian attempts to use this manoeuvre (VI 12 and 15.2). Herodotos' assertion in the latter passage that the ships of Chios applied the *diekplous* need not mean more than that they tried to do so. In any case the story must be considered suspect, for their very strong fighting crews of 40 marines (VI 15.1) are indicative of a different tactical plan, as are their successes, which consisted in ships taken, not ships sunk.

How's conclusion is much reinforced by what is known of, or can be inferred about, the early history of the *diekplous*. This history formally begins in 494 some time before the battle of Lade when Dionysios, the commander of the Phokaian ships in the Ionian fleet, offered to train the crews of that fleet in preparation for the foreseeable battle. This offer was accepted and training began, i.e. training in the execution of the *diekplous*. After seven days however the rowers had had enough of the long days of hard work[5] and refused to obey him any further. The result was that important segments of the rebels lost confidence and prepared to abandon the Ionian cause. This led to the disaster of Lade and the collapse of the revolt (Hdt.VI 11–16).

It is evident that Dionysios was the only Ionian commander who knew about the *diekplous*: before he started his crash course the Ionian fleet clearly was an undisciplined crowd (Hdt.VI 11.2) which should mean that no practising or training of any description was done. On the other hand, the diminutive fleet the Phokaians could contribute at Lade—three triremes—is not the environment where the *diekplous* will have been developed, certainly not in the period of *pax Persica* (540–499 BC), nor during the first years of the revolt when nothing is heard of the Phokaian navy or of that of others, not to speak of their practising the *diekplous*). How seriously reckoned with the possibility that 'the Ionians had learnt the manoeuvre from the best sailors of the East, the Phoenicians,' but this is most improbable: no ancient source associates the Phoenicians of this period with the *diekplous*[6] (and How overlooked the point that 'the Ionians' had to be

[5] Or so Herodotos' upper class informants pretended. In reality the reason will have been less dishonourable. It is not improbable that the rowers had legitimate grievances over their pay, i.e. the welfare of their families. The absence of their big fleet in the defence of their cities makes clear that the Ionian rebels had not provided for its funding.

[6] How referred to Hannibal's Greek tutor Sosylos of Lakedaimon who has a story (preserved on papyrus) about a naval engagement won by one Herakleides of Mylasa at an unspecified Artemision against unnamed opponents who practised the *diekplous* (*FGH* 176F1). The context, an account of an unidentified sea-battle between a Karthaginian fleet and an allied one of Rome and Massalia, implies that Herakleides' opponents were Phoenicians and that he lived a long time before Sosylos himself, which could mean that he is to be identified with a namesake from Karian Mylasa, who is mentioned by Herodotos (V 121), but the story is too imprecise to assign it to any known context and remains a *corpus alienum* in ancient naval history (cf. Hignett's discussion 1963: 393–96).

informed about the manoeuvre by Dionysios!).[7] It can hardly be doubted, however, that Dionysios was of another school, much nearer in place though not in time.[8]

According to Thucydides (I 13) Phokaia next to Corinth and Samos was one of the three Greek sea-powers of note[9] in the two centuries before the death of Darius I. In confirmation of this assertion he mentions naval victories over Karthage connected with the foundation of Massalia. In all probability one of these victories is described rather fully by Herodotos. It is the famous 'Kadmean' victory in the Corsican or Sardinian waters over an alliance of Etruscan cities and Karthage in *c.*540 (Hdt.I 166), known as the 'battle of Alalia'.[10] In this sea-battle 60 Phokaian *ploia* (no doubt pentekontors, cf. Hdt.I 163.2) gained a tactical victory over a fleet of 120 enemy ships, a victory that was nevertheless a defeat strategically.[11] The result was that the Phokaians had to give up their colony at Alalia and retire to Hyele/Elea in southern Italy.

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[7] It is significant that Dionysios says nothing about the tactical capabilities of the Persian opponents, let alone about their mastering of the *diekplous*. His confidence that his training course would result in the enemy losing the tactical initiative (VI 11.3) suggests that he rated their skill as negligible.

[8] According to Grundy (1901: 333 and note) Herodotos' account of the first Greek attack at Artemision 'is a curious one—that of a man who had heard talk of certain naval technicalities without understanding them.' This baseless insinuation is made worse by the irresponsible accusation that Herodotos was guilty of an anachronism in attributing that manoeuvre to the naval warfare of the first quarter of the fifth century and even to Dionysios of Phokaia, all this because 'Thucydides, who knows what he is talking about in naval matters, conveys the impression that it was an invention of his own time, or, at any rate, that it had, as a manoeuvre, been gradually evolved within the period of the Pentekontaëtia.' Thucydides simply does not convey any such impression so that Grundy's criticism falls to the ground. Still, it is parroted by Hignett (1963: 184–185).

[9] Thukydides' words imply that there were no more such 'Ionian' sea-powers; cf. Wallinga 1993: 66–67.

[10] The designation probably is erroneous. Herodotos says that it took place in the 'sea of Sardinia', which we have no reason to extend to Alalia (now Aleria) on the east coast of Corsica, nearly 100 km to the north of the Strait of Bonifacio and Sardinia. The Sardinian sea covered the waters west of Sardinia and Corsica extending to the Gulf of Lions and the Spanish coast, the Tyrrhenian Sea the waters between the west coast of Italy and the islands of Sicily, Corsica and Sardinia (cf. Walbank 1970: 59, 174).

[11] This may be accounted for as the result of the severe losses the Phokaians suffered, combined with adequate countermeasures of their opponents after their defeat (cf. Wallinga 1992: 83 and 112ff.).

The Phokaian victory over a double majority presupposes great tactical superiority,[12] which surely means the application of a superior tactical concept executed by superior crews. Herodotos says nothing about such a concept (nor Thucydides), but Dionysios' intervention at Lade combined with the tradition of Phokaian naval superiority in the west and the anomalous 'victory' of Alalia very strongly suggest that something like the *diekplous* had already been developed by the Phokaians half a century before Lade.[13]

Anyhow, there is no good reason to look for the genesis of the *diekplous* in the east, Phoenician or Greek. How's conclusion that in those parts boarding still was the regular mode of attack in 480 is unassailable and this will be true of the rest of the Greek world also.[14]This however need not mean that commanders of the navies of that year had no tactical options at all. In the battle of Sybota How's 'best Peloponnesian sailors'—the Corinthians and their allies in the Korkyraian war of 435–432 (Thuc.I 24–55)—and possibly their opponents as well successfully reinforced one wing by stationing the 'best sailing', i.e. most fully manned and therefore fastest, ships there.[15]

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[12] The more so because the Etruscans and Karthage, as Herodotos implies (I 166.1), had taken five years to prepare their attack.

[13] The fact that all the twenty Phokaian ships that survived the battle had their rams wrenched off (Hdt.I 166.2) is a strong indication that the Phokaians owed their victory to ramming tactics. For more detailed comments on Phokaia's development as a naval power in the west see Wallinga 1993: 67ff.

[14] It should be noted that the notion of 'boarding' must not be taken as simply meaning the jumping on board of enemy ships and engaging in hand-to-hand fighting. It was preceded and accompanied by the firing of arrows and other projectiles from ship to ship and this fire by itself might eliminate enemy vessels as in the case of the Samothrakians in the battle of Salamis (VIII 90). Often in descriptions of battles these different elements are not precisely distinguished (cf. Wallinga 1956: 40ff.).

[15] For the meaning of 'best sailing' and similar expressions cf. Wallinga 1993: 178ff. and above, IV n.9. The 'best sailers' on the Corinthian left wing only failed to overwhelm the Korkyraian right because the (*diekplous*-trained!) Athenian ships posted here intervened at the last moment (Thuc.I 49.7). Thucydides does not distinguish 'best sailers' among the ships of the Korkyraians, but the fact that the 20 on their left wing did overwhelm the 39 on the right wing of the Corinthian line (12 from Megara and 27 from Amprakia: *ib.*49.5 and 46.1) is significant and may imply that the Korkyraians had reckoned with the Athenian intervention from the start and taken the risk of reinforcing their left wing at the expense of the right. It may well be that the degree of manning of the Megarian and Amprakiot ships was deficient and that this contributed to their defeat. The allied fleet—150 ships

This tactical concept, which Thucydides disparaged as old-fashioned, evidently dominated the minds of the naval commanders at Salamis. As already suggested, initial formations of both Greeks and Persians as Aischylos represents them bear its stamp: a squadron of 207 fast ships in three files, part of the Persian thousand (*P.*339–340), and ten 'selected' units among the 300 Greek ships (*ib.*341–343), which clearly were assigned some special task (as to that of the fast Persian squadron see above, p. 57ff.). Concerning the Greek task force no such specific criterion for its aptness can be adduced. Commenting on *Persians* 339–340 Hall suggests that the ten ships were 'those which were to constitute the leading right wing in the actual battle', (referring to *P.*399–400) 'or those from which the Greek hoplites disembarked to attack Xerxes' elite infantry on the island of Psyttaleia.' Neither idea is convincing: a right wing of ten ships in a fleet of three hundred is without rhyme or reason and the Aiginetan fleet, which as I believe furnished the right wing in the actual battle (Hdt.VIII 85.1, 91), would have been intolerably weakened by the 'selection', i.e. detachment, of ten ships from among its thirty; as to the ships used to attack Psyttaleia, it is hardly believable that they were assigned this task before the battle began, as Aischylos would imply, or that they left the battlefield during the fighting.[16]

On the assumption (above, IV at n.11) that the Greeks planned to defend a position near Salamis city with Órmos Ambelakíon in their rear, it seems better to assign the ten ships some special task in the sea room of that bay. The reason that this squadron was not mentioned by Herodotos' informants may well be that the emergencies it had been detailed to handle did not arise.

altogether, 90 of which Corinthian—seems colossal for the *poleis* concerned (Corinth contributed 40 in 480) and Thucydides' explicit reference to the hiring of rowers in the Peloponnese *and* the rest of Greece, i.e. probably the sphere of influence of Athens (I 31.1), suggests that the allies were overburdened.

[16] In Plutarch's version (*Arist.*9) Aristeides landed his men from *hypêretika*, and though this may be no more than a guess, it is an intelligent guess which deserves to be right.

CHAPTER NINE

THE BATTLE OF SALAMIS

The evidence

Four detailed accounts of this battle have been preserved: one contemporaneous one by Aischylos in his *Persae*; a second written more than a generation afterwards by Herodotos; a third from the pen of Caesar's contemporary, Diodoros of Sicily, but going back mainly to Ephoros of Kyme (4th cent.); and a fourth which is part of Plutarch's Life of Themistokles.[1] Modern students generally agree that the first two taken together are in a class apart—both are internally consistent and there are no serious disagreements between them, different though they may be in structure and perspective—and it has been generally assumed that a good idea of how the battle developed can be based on them.

Regarding the other two the modern estimates are less to far less positive. In so far as they agree with their predecessors they have been and can be disregarded as dependent on them (see n.1); where they differ, the chances that they had evidence, both independent *and* trustworthy, are generally considered negligible, as when Diodoros asserts that the Persian commander was leading the way before the battle-order, began the fighting and was killed after having acquitted himself valiantly, a tale modelled (in part with the same words) after the heroics of Kallikratidas and Peisandros in the battles of the Arginusai and Knidos (DS XIII 99.4; XIV 33.4ff.);[2] and Plutarch suggests that Themistokles initiated the fighting and chose the moment a sea breeze was expected to rise up which would hinder the higher and heavier Persian ships (and not the lower Greek ones), a yarn

[1] Aischylos *Pers.* 353–465; Herodotos VIII 70–95; Diodoros XI 17–19; Plutarch *Them.* 13–15. For the dependence on Herodotos of Ephoros see E. Schwartz 1957: 21f. and for that of Plutarch see Frost 1980: 14.

[2] Of course the Persian commander may have been where Diodoros says he was. The point is that his source had no information, but simply applied a scheme, which as far as Kallikratidas is concerned is given the lie by Xenophon (*Hell.*I 6.32)

very much at variance with Herodotos' account.[3] Only where their information is both independent and not in contradiction of Aischylos or Herodotos (or historical sense) its use can be considered, e.g. Diodoros' statement that the Egyptian fleet was employed to block the Megarian channel (see above, p. 71). For these reasons it seems advisable to found a reconstruction of the battle on the testimonies of Aischylos and Herodotos together and to resort to the other two authors only in case they fill obvious lacunae (as in the case of the Persian losses: see below, p. 129ff.), and not merely add detail we cannot in any way verify.

Aischylos' testimony

Ion of Chios credibly asserted that Aischylos was present at (or took part in) the operations in Salamis Strait (Ἴων ἐν ταῖς Ἐπιδημίαις παρεῖναι Αἰσχύλον ἐν τοῖς Σαλαμινιακοῖς φησίν· ΣΜ *Pers.* 432).[4] His description of the battle, though not to be considered an eyewitness account in the strict sense,[5] may therefore be taken as coming from a man who had precise knowledge of the location of the battle, knowledge shared by the quasi-totality of his Athenian audience at the first performance of the *Persae*, and had seen enough of its progress to produce a description that was acceptable to other witnesses, possibly better informed than he himself and not improbably contributing to it in conversation with the poet.

Understandably therefore, Aischylos' description (summarized in Box I) is generally treated with respect. It is ordered chronologically, at least none of its different elements is evidently misplaced, and an intelligible development of the battle can be inferred from it.

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[3] See the just criticism of Frost (1980: 154–55) and cf. above p. 96f.

[4] = *FGH* 392F7 and cf. Pausanias I 14.5.

[5] Cf. Jacoby at *FGH* 392F7 n.62: 'praktisch wissen wir nicht einmal ob Aischylos bei Salamis auf der flotte oder als hoplit gefochten hat.' Of course, if he served on an Athenian trireme he can hardly have gained an overview over the whole of the battle. Hoplites stationed on Kynosura (Hdt.VIII 95) were better placed in this respect (cf. above, p. 88).

Aischylos, *Persae* 353–428

a. Themistokles'message: Greeks will run away and disperse (353–360)
b. Rearrangement of Persian battle-order: battle fleet and blocking squadrons (361–368)
c. King's instruction to ship captains to let no enemy ships escape on pain of death (369–371)
d. Persian ships prepare for battle during the night (374–383)
e. At dawn Persians realize that enemy does not flee (384–394)
f. All the Greek ships in action and in view, right wing in front (395–401)
g. Battle cries on both sides (401–407)
h. Fighting begins with shattering blow by Athenian ship: then ship against ship (408–411)
i. Initial steadfastness of stream of Persian ships (412–413)
j. Then massed ships in crush with loss of coherence and mutual aid (413–416)
k. Greek ships encircle and batter Persian ships (417–421)
l. Persian ships take flight (422–423)
m. Final stage of battle compared to tunny catch (424–428)

At the beginning of his description Aischylos stipulates that the Persian battle-order was newly organized or adapted in response to Themistokles' message and that very strict instructions were issued to the ships' commanders that no Greek ship must escape on pain of death. This repeated the orders in force at the beginning of the operations at Artemision (see above, p. 81ff.). The Persian attackers prepared during the night and at dawn set out under the impression that the Greeks were demoralized and about to flee, but soon realized that they were mistaken in this: the enemy was chanting the paean and presently his ships came all into view.[6] Battle-cries were then raised on both sides and the fighting began when an Athenian ship shattered the stern ornament of a Phoenician opponent. Then ship fought against ship. Initially, the stream of Persian ships held its ground, but when the massed fleet was bunched in a

[6] This passage has given rise to the impossible notion, emphatically defended by Hammond (1973: 251–52: see above, p. 58), that the Greeks coming from their berthings up the Stenón Naustáthmou were initially hidden behind the promontory of Amphiale. Of course the poet is here referring to the belief of the Persians that many Greek ships would have taken to flight during the night. What they now saw was that the Greek line, led (in their perspective) by the right wing, continued much farther than they had expected and that finally *all* the Greek ships were seen to have taken up their stations.

tight squeeze, coherence was lost and mutual assistance became impossible. The Greek ships surrounded the huddle and battered away at it. When the Persians then took to flight, the battle became like a tunny catch with its wholesale slaughter.

It is evident that this description, notwithstanding its clarity, has serious shortcomings from the point of view of the historian. The poet presupposed in his public familiarity not only with the location of the battle, as well he might, but also with the original positions of the contestants. Without such familiarity it is well-nigh impossible to visualize the successive stages of the fighting and their localization in the Narrows on the basis of his description. Indeed, it is not too much to say that it must chiefly have served as a reminder to the Salamis veterans in his first audience, and (understandably) more to rouse their feelings than to confront them with an analysis or reconstruction of the battle.

Herodotos' evidence

Herodotos' description (see summary in box II) therefore is a welcome and indeed a necessary supplement. As to its character when compared with Aischylos one may say without hesitation that it is not at all like an eyewitness account. It is more like a mosaic composed of very different elements: fragments of eyewitness reports (both 'Ionian' and allied-Greek), second-hand tales going back to participants, a downright attempt at falsification circulating in Athens. In the first category I would place the Persian reconnaissance of the battlefield (VIII 70) and, generally, the description of the fighting; in the second the remarks about the participation of the Ionians (*ib.* 85); to the third belongs the Athenian version of the part played by the Corinthians (*ib.* 94).

One thing in particular seems certain about the relationship of the two authors, viz. that Aischylos' description as such was not part of Herodotos' documentation.[7] Apart from elements peculiar to either,

[7] Munro's assertion (1926: 273) that 'Herodotus knew the *Persae*, and could half quote a line (l. 728) from it on occasion (VIII, 68)' goes too far. Cf. Groeneboom at 728–731: 'Wie ein Echo dieser Stelle klingen die warnenden Worte der Artemisia bei Hdt.' and (better) Van Groningen at Hdt.VIII 68γ: 'similar to, but also influenced by?' I would not exclude that Aischylos' judgment became a slogan in the discussions in Athens concerning the relative contributions to the victory by army and navy and so reached Herodotos' ears.

Herodotos VIII 70–94:

a. Persians reconnoitre battle-field in preparation for the next day; Greeks panic (70)
b. Persian infantry advance on Peloponnese; Pelo ponnesians start building wall (71–72)
c. Greeks in panic decide to move to Isthmos (74)
d. Themistokles' message: Athenian commander on side of king, warns that Greeks in utter fear contem plate flight and may fight each other (75)
e. occupation of Psyttaleia; rearrangement Persian battle-order: western wing on way to Salamis, squadrons for Keos and Kynosura on their way; ships cover all the fairway down to Munichia; all-night preparation (76)
f. continuing dissension among the Greeks (78)
g. Aristeides and Panaitios of Tenos disclose encirclement (79–82)
h. at sunrise Greeks make ready (83)
i. Persians attack at moment Greeks put out (*ib.*)
j. all Greek ships back water until Ameinias sallies out and rams opponent; then general engagement; Aiginetans also claim first strike (84)
k. female apparition stops Greeks backing water (*ib.*)
l. order of battle on both sides (85)
m. involvement Ionians, names being withheld (*ib.*)
n. Persian losses: ships sunk (86)
o. general characteristic battle: Greek order versus Persian disorder; combativeness Persian crews (*ib.*)
p. no information on individual feats, except concerning queen Artemisia (87–88)
q. personal losses: non-swimming Iranians drown in masses (89)
r. collapse Persian battle-order result of frontline starting flight and second line pushing forward at all cost (*ib.*) s. Phoenician complaints about Ionian treachery belied by Samothracian exploit; complainants beheaded (90)
t. Persian bookkeeping of heroic services to the king (*ib.*)
u. flight Persians to Phaleron (*ib.*)
v. *aristeia* Aiginetans catching ships fleeing before Athenians (91)
w. meeting of Themistokles and Polykritos (92)
x. escaped Persian ships go to Phaleron (*ib.*)
y. *aristeiai*: Aigina and Athens collectively, individually Polykritos and two Athenians, Eumenes of Anagyros and Ameinias of Pallene; the latter's search for Artemisia (93)
z. the controversy over the Corinthian accomplishment (94)

nothing they have in common must be taken as direct borrowings by Herodotos: they are better explained as originating in independent accounts he heard in Athens (which possibly echoed the *Persae* more or less directly). The fact is that the similarities never are very specific: the two versions of Themistokles' message are different even if there is an important overlap (*P.*353–360 vs. VIII 75); the first blow that started the actual fighting is described by Aischylos as if breaking up a simple confrontation, while in Herodotos it occurs in a rather dramatic situation when all the Greek ships back water until a female apparition shames them into action (*P.*408–411 vs. VIII 84); when Aischylos stresses the initial steadfastness and coherence of the Persian attackers and then speaks of the press of the mass of ships that broke the coherence (*P.*412ff.), and Herodotos asserts that the collapse of the Persian battle-order was the effect of the second line pressing forward at the moment the frontline began to retreat (VIII 89.2), they evidently refer to the same stage of the battle, but Herodotos' greater precision appears to go back to a different informant or informants. This will be true of Herodotos' account as a whole.

Herodotos in any case has preserved important clues regarding the two points where I found Aischylos' account failing to come up to our needs, the location of the battle and the initial positions of the contestants. When he says (85.1) that the Phoenicians were stationed on the wing directed towards Eleusis and the West and that the Ionians were on the eastern wing directed towards Piraeus, he clearly means that the Persian attackers moved in line with the route a ship would take from Piraeus to Eleusis. This is not to say however that they really were on their way to Eleusis, for Herodotos has already stipulated that the western wing was under orders to proceed to Salamis (VIII 76.1), i.e. the city, where the enemy fleet was based (see above, IV at n.11). The mention of Eleusis in other words serves to determine the general orientation of the Persian attack, perhaps also because as an orientation point Eleusis was less ambiguous than 'Salamis.' The mention of Munichia as the other orientation point (ib.) serves a related purpose, in this case to document how far back the Persian attacking forces reached when the attack started, or perhaps rather the moment the ships of the Persian vanguard took up their starting positions. So, according to Herodotos, the Persian battle-order consisted of a western wing which was

followed by a host of other ships, to the effect that when the Persian attack was launched the whole armada stretched back as far as Munichia.

Now a similar formation is also implied in what Aischylos tells us about the fleet with which Xerxes attacked. As I argued, he distinguishes 207 fast ships among Xerxes' '1000' (*P.*341–43) and also differentiates between a *stiphos* ordered in three files and 'other ships' assigned to block the outlets and the streets (east and west) of Salamis. Aischylos' 'other ships' are of course identical with Herodotos' detachments directed to Keos and Kynosura (see above, p. 49f.) and were not involved in the battle except perhaps (some of) the ships stationed at Kynosura (see above, p. 91). It is true that his *stiphos* in three files and the 207 fast ships are not immediately identifiable with the items in Herodotos' account (including the ships 'stationed behind': VIII 89.2). Still I feel certain that Herodotos' western wing, which included the Phoenicians (85.1) and therefore must have been the vanguard of the attacking fleet, is to be identified with Aischylos' 207, taken as the vanguard of the latter's *stiphos*. The rest of this *stiphos* may then be found in Herodotos' ships that were 'stationed behind' his western wing (see Map II).

Admittedly the information we thus find regarding the original stationing of Xerxes' fleet gives only the relative positions and no specification of the starting position. This gave Grote liberty to suggest that 'during the night, a portion of the Persian fleet, sailing from Peiraeus northward along the western coast of Attica, closed round to the north of the town and harbour of Salamis so as to shut up the northern issue from the strait on the side of Eleusis . . . and then to attack them in the narrow strait close on their harbour the next morning' (V 128).[8]

This notion, which implies that the Persians managed—presumably unnoticed—to pass directly by the Greek camp at Salamis, was vigorously rejected by Goodwin who reasonably asked whether it were 'likely that the Persians, who if they were within the straits[9]

[8] In the quotation I left out the following sentence: 'while another portion blocked up the other issue between Peiraeus and the southeastern corner of the island . . . These measures were all taken during the night, to prevent the anticipated flight of the Greeks.'

[9] That is: on top of the Greeks. Goodwin stresses that notwithstanding this the

were there eager to capture the Greek fleet, which they believed to be anxious to elude them by flight, would have lost this opportunity to anticipate the Spartan tactics at Aegospotami by seizing the Greek ships while the crews were getting ready to embark, or would have failed at least to attack them before the line of battle could be formed' (1885; 242; 1906: 75f.) This is a truly irrefutable argument: if the Persians had indeed reached the position, as defined by Grote, during the night, there inevitably would not have been a battle.[10]

It is here that the failure to appreciate the meaning of Themistokles' message and in connection with it the priorities of the Persian staff has led into error. Given their resolve to let no Greek ships escape, what the Persians must have wanted to avoid at all costs was frightening the Greeks into a rash sauve qui peut reaction that could result in the break-out of substantial numbers of the dangerous triremes. Being warned by Themistokles' message that (part of) the Greeks might be preparing flight already and having sent detachments to the outlets east and west of Salamis island in an attempt to prevent this, they were bound to consider that a nightly penetration of the Narrows would not improbably force this issue and result in a situation so confused—some Greek ships resisting, some fleeing, others trying to join the attackers—as to make it impossible to direct the operations and so to make really sure that no Greek ships would escape. This situation on the other hand could easily be avoided. Since a time schedule for their attack as outlined above (p. 72f.) must have seemed very promising and since they had of course no inkling that Themistokles had seen through their plan, they had all reason to be confident that their attack would be successful. They may, moreover, have had still another reason to hold

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Greeks leisurely made ready for battle in the early morning. However, he rather exaggerates this aspect of the start of the battle (1906: 94): one of his indications is that Themistokles harangues the Athenian crews <actually the marines only> and that his harangue was neither 'short nor hasty' since Herodotos gives 'an elaborate account' of it. The account amounts to two lines of modern print.

[10] All arguments to the contrary imply that the Persian commanders were utterly incompetent, and must be considered vain; see e.g. Kromayer-(Keil) 1924: 93ff. Keil's suggestion, with which he concludes an able defence of Goodwin's position (!), that the entire Greek fleet was stationed in the Órmos Ambelakíon, packed together like sardines in a tin (94 n.2), and thus was comparable to a city under siege, makes the staff on both sides utter bunglers, the Greeks for allowing their fleet to be thus huddled together, the Persians for not exploiting this situation.

fast to their plan to use their numerical majority, spearheaded by the 207 fast ships, to immobilize the Greek triremes against the Salamis coast. For in this way they would have the best chance to capture undamaged as many Greek ships as possible, which would then be available for the organization of a third royal fleet to be employed in the pacification and policing of the newly conquered territory.[11]

On the basis of the time schedule just mentioned—which would leave the Persian attacking line about half an hour around dawn to reach a position between a point near Áyios Yeóryios and Ákra Kinósoura to cover the whole width of the Greek battle-order—the starting position of the first ranks of the vanguard should have been near Ákra Kéramou from where it is some three nautical miles to Áyios Yeóryios. As I suggested (V n.17), the ships in this scenario would have berthed during the night along the southwest side of Piraeus including the Kantharos, a position which is plausible on any theory for the attacking ships.

So much for the start of the battle. We see that Aischylos and Herodotos, even when not in unison, furnish descriptions that we can integrate without forcing. Precisely the same is true for the stage of the battle when things began to go wrong for the Persians. Here it is interesting that neither author makes this reversal a title to fame for the Greeks. Both do indeed ascribe the first blow to a Greek ship, but both leave it at that: it is not the beginning of any important development. Aischylos' next point is the initial steadfastness of the stream of Persian ships which was only lost when the mass of ships crowded together and space became cramped:[12] the Greeks do not contribute to this breakdown, though they 'clever enough' (*P.*417) profit from it. Herodotos also makes the collapse of the Persian battle-order the result not of a Greek initiative, but of the Persian second-line ships colliding with those of the first line. It is true that he implicitly describes the beginning of the débâcle as an accom-

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[11] Compare the treatment of the ships of the Thasian navy, which were not destroyed like the defensive works of Thasos city, but had to be surrendered (VI 46.1, 48.1; see above, p. 16ff.) and were presumably incorporated in the Persian navy's Aegean fleet.

[12] I stipulate that στενόν cannot here refer to a specifically narrow part of the Strait, which is only to be found where the battle was not (see above, p. 64). The term characterizes the situation—the 'straits'—in which the Persian fleet found itself.

plishment of the Greeks: the collision was the result of the first line taking to flight. Still he was at a loss to attribute this achievement to any commander, as indeed he disclaims in a general way any knowledge of individual successes. As Macan suggests (at VIII 87.1), this disclaimer will be 'a confession of the failure of his sources;' his insinuation however that these sources merely failed to furnish heroic anecdote which Herodotos craved, but that he in his turn failed to register the strategic and tactical details that 'do not much preoccupy him' is entirely gratuitous as the similarity with Aischylos' account shows. To my mind both accounts are entirely intelligible from the military point of view, however different the terms may be. In the struggle between the two front lines there was no victor in the tactical sense. Herodotos is just somewhat clearer. In this context we encounter another, this time unmistakeable, indication that Herodotos did not use Aischylos' drama.

Aischylos winds up his messenger's report with a powerful image comparing the final stage of the battle with a tunny catch. Herodotos has nothing equivalent. This comparison has not as far as I know been fully appreciated, especially not in its tactical significance: it is merely taken as drastically illustrating the killing orgy at the end of the battle, which indeed exactly corresponds with the final stage of the traditional tunny catch, a particularly brutal and bloody affair.[13]

There is however another point of resemblance which is not highlighted by Aischylos, but nevertheless implied in his account. Tunny was fished with big to very big nets, organized as oversize fykes or traps, the long wings of which force migrating shoals into a so-called chamber of death, one of the wings being affixed to terra firma. Seen from above, the net in its simplest form looks like a long loop-line: into the curve at one end—the chamber of death—the fish are forced and are then attacked with clubs and hooked poles by the fishermen. I suggest that Aischylos' image of the tunny catch implies that an analogous configuration prevailed in Salamis Strait. This means that the unbroken, orderly line of Greek ships came to curve around the massed and disorderly Persian attackers, especially around the tip of their right, westerly wing. This implication finds confirmation

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[13] Ailianos *NA* XV 5; Philostratos *Imag.* I 13; Oppianos *Hal.* III 640ff. Tunny fishery is treated exemplarily in H. Höppener's excellent *Halieutica* (1931: 120ff.).

in the fact that the poet, having described the beginning of the Persian collapse, says that the Greeks encircled and battered away at the enemy ships (κύκλῳ πέριξ ἔθεινον: *P.*418), for this is exactly what happens around the 'chamber of death' at the end of the tunny net. This image therefore is not just a poetic device, but really corresponds with the facts of the battle as here reconstructed. Interestingly, it is not improbable that the poet had a personal relationship with this aspect of the fighting.

I already noted the peculiar stress he lays on the Greek landing on Psyttaleia and the killing of the Persian occupiers and the way he glorifies this exploit (above, p. 89). This may well mean that he personally participated in it, or at least belonged to the hoplites stationed along the shore of Salamis (VIII 95) and so was in a position to witness these events. The clue to what happened in this other case is to be found in the messenger's complaint of *P.*424–426: 'But they (the Greeks), as if we were tunnies or a catch of fish, with broken oars and pieces of wreckage they struck and broke our backs.' Here it is not immediately clear who are doing the striking and the breaking. At first sight one would suppose the Greek crews to be meant, as was done by Platt (1920: 332) who objected that they would not have used such makeshift tools. To this Broadhead rightly replies that the decks of the triremes were too high[14] for the crews to reach floating men with broken oars and such. He less plausibly suggests that 'the natural place for the Greeks to be using broken oars and bits of wreckage would be the shores and reefs referred to in 421.' The problem here is where the shores and reefs in this verse, thus interpreted, are to be found and how the drowning and the killers came to be there.

It must be clear at once that this can only be a shoreline in front of the Greek battle-order: Salamis and Áyios Yeóryios at its back cannot be meant, since Persian ships and crews could only have come near these places by breaking through the Greek line, an impossible idea. The coast of Attica is the only alternative but is

[14] Broadhead's assertion (p. 127 n.2) that 'a banked ship <meaning a trireme> was some sixteen feet above the water-line' is based on misreading his authority, Torr, who refers to the fighting decks of the huge δεκήρεις in Marc Antony's fleet (1895: 21, not 20). The trireme as reconstructed by Morrison and Coates (*AT*[2] p. 198, fig. 56) has decks some 2.5m (upwards of 8 ft) above the waterline, still far too high.

impossible for another reason, viz. that there could have been no Greeks there during the battle. Evidently the killing was done by the shore, but still on the water and as the weapons were so irregular, we may infer that the killers were irregular fighters as well, men not included in the rowing and fighting crews of the triremes, who had watched the progress of the battle with mounting impatience, chafing at their impotence; and, as soon as the tide of battle decisively turned, grabbed any craft available and joined in to the fray with any weapon coming to hand. Hope of booty may well have been an additional incitement. As the scene of this minor feat of arms the surroundings of the smaller Pharmakoussa island seem our obvious choice: here Aischylos' 'shores and reefs' are certainly to be found.

There is thus a clear resemblance between this episode and the attack on Psyttaleia as interpreted in chapter VI. That the former is entirely ignored by Herodotos and the latter much less emphasized than in the *Persae*, I would explain by assuming that among Herodotos' informants there were none with the personal involvement of Aischylos. Also, the participation of irregulars in the last stage of the battle was bound to be considered (not unreasonably) as of little account and so had little chance to survive thirty or forty years of emphasis on the main events.

The accounts of Aischylos and Herodotos so far analysed and compared have mostly been accepted as trustworthy, even when not entirely concordant. Two other stories are preserved by Herodotos alone. The first regards the Greek fleet as a whole, the second the Corinthian navy only. According to Herodotos the onset of the Persian attack led to all the Greeks backing water; they even were about to run their ships aground. His informants offered three versions of the way this manoeuvre was terminated. One made this the effect of the attack by the Athenian Ameinias of Pallene on an enemy ship: when Ameinias' ship got entangled with its opponent and could not disengage, others came to his help, and this ended the initial recoiling; according to another tale the Aiginetans claimed that one of their ships had started the fighting and so presumably ended the recoiling; there also was a third story about a female apparition that loudly shamed them and then fired them into action (VIII 84).

Another apparition figures in the Athenian version of the tradition about the part taken, or rather not taken, in the battle by the

Corinthians and specifically by their commander Adeimantos. According to this tale, when the battle started Adeimantos panicked, hoisted sail and turned tail, followed by his navy. When the deserters reached the sanctuary of Athena Skiras at Ákra Arápis on Salamis, a small fast galley coming from out of the blue ran into them; the crew of this ship, while blaming Adeimantos for his betrayal, reported that the Greeks were gaining the day and offered themselves as hostages to endorse the truth of their report. Thereupon Adeimantos and the others turned back and rejoined the Greek fleet, but the battle then was over (VIII 95).

This tall story was denied by the Corinthians themselves, who affirmed that they had fought among the first, and their denial was upheld by the rest of the Greeks, as Herodotos emphasizes. Moreover, final proof of the truth of this denial has been preserved in the epitaph erected on the grave of the Corinthians fallen in the battle, which was recovered on Salamis more or less *in situ* (ML 24). It was quoted by Plutarch (*Mor.* 870E). The version of the Corinthians, thus vindicated, does not alas add to our information about the battle, nor even regarding their own place in the battle-order. The Athenian version does exactly this: it implies that the Corinthians were on the left wing and so could make their escape to the north without disturbing the Greek battle order. This is an important detail, because otherwise the tradition is entirely silent about the position of the Corinthian navy, the second in number but the first in seniority in the Greek fleet. Apparently Herodotos' Corinthian and other Greek informants did not offer alternatives for what the Athenian version implied on this point. That is why I am wary of following Lazenby, whose scepticism has led him, like Hignett, to reject the whole story out of hand (1993: 190),[15] the more so since it may help to explain the collapse of the Persian battle-order. Its core—that the Corinthians made a peculiar movement, suggesting (without being) flight—may be a valuable indication that Themistokles' message was not the only tactical counterstroke on the part of the Greeks.

If the stories about the Corinthian move out of the Greek battle-order *and* their participation in the battle are to be believed, the

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[15] Hignett (1963: 413) flatly states that 'it is a complete fabrication without any foundation.

move must have been made by design, just as the recoiling of the rest of the Greeks. I have already argued (above, p. 61) that the waters near Áyios Yeóryios offered possibilities for a stratagem. In these stories we may have to do with attempts at feints. At this stage of the battle feints were the only way in which the Greeks could disturb the Persian onslaught once it had started and, if successful, even could envelop the foremost Persian ships, as Aischylos suggests the Greeks did indeed accomplish. For this reason these odd traditions merit serious consideration.

It is evident that Herodotos made his enquiries regarding this particular aspect of the battle at an unpropitious moment, when the mutual hatred of Athenians and Corinthians (τὸ σφοδρὸν μίσος: Thuc.I 103.4) was such that their respective versions of the Corinthian move were merely denied by the opposing party and on neither side really elucidated, so that the historian could do no more than state the deadlock.[16] Or could he? There are two considerations which make me think that he could have said more. To my mind the Athenian version of the story is self-contradictory in a way suggesting that there is an element of truth in it: first it is alleged that panic on the part of the commander led to the Corinthian manoeuvre, then that it coincided with the very beginning of the Persian onslaught (αὐτίκα κατ' ἀρχάς, ὡς συνέμισγον αἱ νέες: VIII 94.1) and finally it is implied that all the Corinthian ships were involved in it. But it is very improbable that, *if* Adeimantos really panicked at so late a moment, he would have swept along all his captains. So the timing of Adeimantos' 'panic' is suspect, especially in an Athenian story: for to Athenians his whole behaviour, to begin with his part in the consultations of the Greek naval command, must in retrospect have seemed treasonable. So they did not need this strange element at all and for that very reason we are entitled to take it as trustworthy. In other words: the whole Corinthian fleet was involved in a manoeuvre on the Greek left wing at the beginning of the battle.

[16] According to Lazenby (1993: 189) the Athenians' backing water 'even if true . . . was surely nothing more than the jockeying for position which presumably always went on as ships took up their fighting formation'. I have no idea on what data this presumption is based and I am sure that the practice of jockeys at the start of a race (or of cavalry preparing for a charge) has very little in common with that of the steersmen of triremes at the beginning of a battle.

In this perspective the turning away of the whole Corinthian navy at that critical moment looks very much as if it was a tactical move, as was already suggested by Burn (1962: 458). Burn has proposed to take the Athenian story as a perversion (inspired by postwar jealousies) of what the Corinthians really did, viz. to carry out 'a very peculiar manoeuvre which probably not only deceived the enemy to his ruin, but was open to misunderstanding by the Athenian rank and file'. He does not really try to be more precise about what this manoeuvre was and why it should have had this effect on foe and friend. His idea that the Corinthian ships 'were detailed to guard the rear, at the north end of the western straits, in case the Egyptians intervened' is not in my view attractive at all, for with such an entirely honourable excuse for their absence why should the Corinthians have been content with merely denying the Athenian story? Nor does Burn make clear how such a perfectly regular assignment could 'deceive the enemy to his ruin,' or explain into what ruinous reaction the enemy was to be misled.

On the other hand Burn plausibly points to an interesting parallel to the Corinthian move, which may have been taken as such by the commander of the Persian vanguard and so have influenced his decisions. In his view 'many or most of the Phoenician captains 'now leading the advance of their fleet perhaps a mile away <from the initial position of the Corinthians> must, as young men, have seen the Samians <hoist their sails and take flight>, to start the Ionian débacle at Lade fourteen years before' (*ib.*). Again, he does not explain how the Phoenicians reacted or ought to have reacted specifically to this manoeuvre at Lade, nor in what sense it was analogous to the Corinthian movement in the Narrows of Salamis. However, on the hypothesis propounded above (p. 58) that the immediate objective of the Persian attackers was to extend their line beyond the left wing of the Greeks, recoiling and retreating movements of the ships on this left wing, which suggested flight, put the commanders of the leading Persian ships in a quandary. Were they to proceed to the position originally assigned to them (up to Áiyios Yeóryios) and so find themselves without opponents and reduced to landing their marines and other troops on Salamis, or adapt to the new situation (assuming that the retreat was genuine) and attack the Greek ships that now formed the extreme left wing? Taking the latter course they would secure the chance to distinguish themselves in the ensu-

ing battle, but put the hindmost ships (of Aischylos' 207) hors de combat. To my mind, the apparent loss of cohesion in the Persian line (and the absence of any landing) definitely suggests that the latter of these alternatives was chosen and that this contributed to, if it did not actually start, the confusion in the Persian battle-order.

Regarding the Corinthians' contribution to the Persian defeat, this reconstruction of their movements at the beginning of the battle—first feigning flight and then returning to take part in the crushing of the Persian right wing in the 'chamber of death'—may well explain why it was difficult for them to refute the Athenian aspersions. For if they travelled a goodly distance away from the Greek line of battle to make the feint convincing, the result must have been that the forming of the 'chamber of death' was begun by other (no doubt Athenian) ships: the Corinthian part in the ensuing fray could then only be subsidiary. And ironically, the more they would stress the importance of their feint, the more it would be evident that their part in the fighting was no more than subsidiary.

Losses

A word is needed about the tradition regarding the losses on both sides. Notoriously, Herodotos is entirely silent on this issue (just as, perhaps more understandably, Aischylos), but figures have been preserved, or at any rate produced, by Diodoros (XI 19.3): 40 Greek ships lost and upwards of 200 on the Persian side, not including those captured with their crews. These figures are often ignored and in any case taken to be of very doubtful value, e.g. by Busolt (1895: 707 n.8). Hignett affirms that they 'seem to be pure conjecture and nothing more' (1963: 245), but his elucidation comes down to no more than crass and arbitrary overruling of the tradition. In his view 'if the disparity in losses had been so great, the Greeks would surely have perceived that the Persians were in no position to continue the struggle, whereas they at first expected the enemy to fight again.' The basis of this amazing argument is Hignett's assessment of the Persian strength before the battle at 340 triremes, the remainder of an original 600 (1963: 209 vs. 349–50): if after the battle only some one hundred ships had remained, this could not have escaped the Greeks, therefore the losses must have been smaller. Here, as usual

with Hignett, the reasoning is sound enough, but the basis lacks all verisimilitude. The fundamental datum for the Persian strength at the beginning of the battle is Aischylos' eye-witness testimony that the king then had (nine hundred to) one thousand[17] ships and it is this figure that makes Diodoros' '200 and more' possible, and indeed respectable, though not at face value as Hignett takes it: Diodoros' figure must be specified. For if it is assumed that the 700 and more triremes left to the Persians on his reckoning were all fully-manned and therefore battle-worthy, there crops up a difficulty of the same order as that construed by Hignett, viz. why the Persians abandoned the naval struggle so promptly. If however the Persian ships are taken to have been originally provided with skeleton crews of some sixty rowers on average, as I proposed (above, II at n. 28), and the actual degree of manning varied according to function in the prospective battle, Aischylos' 207 fast ones may be presumed to have been fully manned, the rest of Xerxes' ships less and far less so. It then follows that the seriousness of Diodoros' losses would depend on what part of them were such fully-manned triremes. The loss of more than 200 of such ships with some 35,000 rowers would indeed be a calamity for which Aischylos' summing up: 'there never perished in a single day so great a multitude of men' (*P.*431–32: transl. H.W. Smyth) is hardly dramatic enough. If on top of everything the ships in question happened to be Phoenician with the most skilled crews in either fleet, the loss of more than 200 can be put at more than half the effective strength of the fleet that reached Phaleron,[18] a veritable catastrophe, which the Persian staff will have put in perspective by considering that the enemy was certain to be able to muster even more ships than the 300 used in the battle and above all to supplement his crews.[19]

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[17] For the number see above, p. 34f.

[18] Assuming that the fleet that reached Phaleron numbered some 950 triremes, manned by about 57,000 rowers, it was reduced now to upwards of 700 for which 22,000 rowers were available, just enough to fully man 300 triremes. On Diodoros' reckoning (combined with Herodotos' figures for the original Greek strength: see II n.20) the Greeks still must have had well over 300 battle-worthy ships.

[19] The fact, laboured by Hignett, that the Greeks expected Xerxes to attack a second time, does not in my view mean that they underrated the seriousness of the Persian losses, but that they were aware of their ignorance regarding Xerxes' reserves. Of course they knew that he had very many ships left. The moot point was how many he could man.

As we have seen, Herodotos states that the attacking line of the Persians, i.e. their western wing (= Aischylos's 207), was followed by a second line of ships 'stationed behind' and that the pressure of this second line frustrated the retreat[20] of the first, which consequently found itself between hammer and anvil. In this perspective it is only natural that the ships of the first line (in large part, if not all, Phoenician ships!) suffered most and not improbable that this line was destroyed all but completely.[21] By this consideration Diodoros' figure certainly wins much in plausibility. And indeed, it is not at all improbable in my view that a genuine record of the Persian losses was preserved in the great base at Kyme and thus became known to the Kymaian Ephoros. On the other hand, one cannot entirely exclude that the figure was not part of any tradition, but the product of speculation, but if Ephoros or another of Diodoros' authorities had had to guess, I very much doubt that he would have kept his guess so modest as to the number. On balance therefore I am inclined to accept Diodoros' figure.

Regarding the losses of the Greeks little can and need be said. There are no other data with which Diodoros' forty ships can be connected, nor is there in this case any reason to suppose that there existed a relevant local tradition in Kyme to which Ephoros might have had access. At best estimates (more likely random guesses) of Persian officials could have been preserved there. The roundness of the figure certainly is not a mark of trustworthiness. In this case therefore it seems best to suspend judgment.

Battle plans

Assuming that the essential data preserved by Aischylos and Herodotos have all been correctly interpreted and combined in the foregoing chapters I conclude that it was indeed the Persian plan of campaign to penetrate into Salamis Strait up to Áyios Yeóryios so as to invest the Greek fleet berthing on the south shore of the Strait and in

[20] Herodotos actually speaks of flight (89.2), no doubt correctly quoting his informants, but what had seemed flight to Greek eye-witnesses may still have been attempts at finding manoeuvring space.

[21] Diodoros' reckoning implies that the losses of other contingents (the Cyprian, the Cilician etc.) were light in comparison.

Órmos Ambelakíon, and to immobilize it there; then to supplement this investment by the blockade of the escape routes east and west of Salamis island to guarantee that no enemy ships would make good their escape; further to attack the crews of the enemy ships (or in other words to capture these ships) and then to overwhelm the combatants and civilian evacuees on Salamis island by landing troops there; all this finally to force the surrender of the Greek fleet.

To this end the Persian fleet was divided in three: two detachments sent to blockade the escape routes by Cape Kynosura and Cape(?) Keos, now Ísplous Kinósoura and Póros Megáron, at the eastern and western extremities of Salamis island; and a main force consisting of 207 fast—i.e. fully-manned—triremes as a vanguard and the rest of the serviceable ships as a second line in support (see Map II). During the night before the battle the island of Psyttaleia was occupied by a force of perhaps 400 Persians, presumably to be near at hand as soon as the attack on the Greek fleet was fully developed and ships would be available to land troops on Salamis from the south: the detachment blockading Ísplous Kinósouras, which to all intents and purposes would be released from this task as soon as the Greek right wing was fully engaged, was well placed to ferry these and other troops over to Salamis. The task of these forces will have been first to assist the naval forces in fighting down the Greek fleet, e.g. by hindering the replacement of wounded and killed marines, and eventually to prevent the Greeks from taking on board civilians as a first step towards flight.

As to the main force, the fast ships of its vanguard were to start very early, probably before sunrise, and to move in to the Órmos Keratsiníou as fast as possible in order to measure up to the enemy's western flank before he had been able to deploy, its triple formation contributing to the speedy execution of that order. As soon as the vanguard had formed up in one attacking line, one ship deep in its full width, the rest of this main force was to support it by drawing up in a second line behind it. If this manoeuvre succeeded and the battle developed as planned, the Greeks being pushed against the Salamis shore, ships not engaged in holding the enemy could land troops on the coast north of Salamis town (near modern Paloúkia).[22]

[22] I have no doubt that there were Persian troops stationed on the northern shore

Such a plan as this must have appeared promising to the Persian command for several reasons. If the vanguard succeeded in surprising the enemy, chances were that the Greek resistance would disintegrate before it had been properly organized; the low morale of the enemy as disclosed by Themistokles' message being expected to be a contributing factor. If on the other hand the surprise would fail to come off, the double line of vanguard and the 'ships stationed behind' could be expected to keep the Greeks in check in the straight battle that would ensue. The troops landed on Salamis would then tip the balance. And even in case the sea-battle did not entirely develop according to plan and landings had to be postponed or even cancelled because ships could not be released for the purpose, their superior numbers and especially the strong complements of Iranian marines with their great firepower would enable the Persians in the long run to overmaster their opponents.

Essential condition for success was of course that the commanders of the vanguard meticulously executed their orders, especially that of forming the tight investing line, and did not lose their bearings (or indeed their heads) over unexpected actions or reactions on the part of the enemy. The chances that this would happen were not imaginary—quite independently of what the Greeks would do—because of three factors: first the extreme ambition of officers and crews, emphasized by Herodotos (VIII 86), that was no doubt in large part incited by their lack of success in the actions at Artemision (and was to lead to the inopportune pressing on of the second-line ships: VIII 89.2); second Xerxes' harsh threat that the escape of Greek ships would be punished with executions; and third that many ship commanders had had their position in the battle-order and their orders changed during the night and not improbably had had their oar-crews thinned out (and robbed of sleep). All this is likely to have led to extreme tension among these men, which would not make for cool decisions.

As to the Greek answer, it is a telling feature of the tradition about Salamis in Aischylos and Herodotos that no tactical plan is ascribed to the Greek command, not even to Themistokles. Of course, what Themistokles had done as soon as the Persians had revealed

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of Órmos Keratsiníou with the primary task of protecting the king and his entourage, but ready to be ferried over as soon as the battle had progressed auspiciously.

their intentions in the afternoon before the battle deeply influenced the operations, but more on the level of strategy. Apparently the Greek tactical plan was of a very elementary kind: to form a defensive line and to hold it tenaciously, like a hoplite phalanx on the defensive would do, reducing the number of triremes actually deployed to 300 (*P*.339–40) to maximize the crews and thus to increase their staying power; and, to judge from the same testimony, to keep a small and fast squadron of ten ships in reserve to support ships in difficulty and to block off threatening gaps in the battle-order, this in agreement with old-style naval tactics (see above, p. 113). On the other hand, as already suggested, the initial recoiling and running-away movements point to more artful tactics, especially in the case of the 'flight' of the Corinthian fleet. The stratagem in question may of course have come to nothing, but even in that case the undisguised withdrawal of this strong navy will have served yet another purpose, viz. to prevent Persian landings on Salamis.

The battle

Regarding the actual progress of the battle, the first thing to be noted is a paradox: the battle lasted for a full day, from sunrise to sunset (*P*.386f. and 428). This should be reason to expect that mobile tactics played a small part: in the early stages because there was no room (this at any rate was the intention of the Persian command), later because the oar-crews became exhausted. Nevertheless Herodotos insists that the Persian losses mainly consisted of ships sunk (VIII 86; cf. Diodoros XI 19.3) and Aischylos' emphasis on ramming (*P*.418) is in agreement with this. It is not made clear how the Greeks got the opportunity, but clearly the confusion on the Persian side emphasized by both Aischylos and Herodotos was an important factor. In any case the anecdote about the meeting of Themistokles and Polykritos (VIII 93) implies that later in the day there was manoeuvring room for the Greeks, for it seems most probable that the positions in the Greek line of Athenians and Aiginetans were far apart when the fighting began.[23] Also the tradition that survivors of Phoenician ships

[23] The tradition about the stationing of the individual Greek navies in the defensive line is divided. According to Herodotos, who evidently had little information

could get to the king (VIII 90.1) suggests that later in the battle the Persian line was pushed on to the north shore of Órmos Keratsiníou, where the king had his ringside seat, and this implies that the Greeks then had ample sea-room. The ability to make use of this sea-room in the later phases of the battle they may well have owed to their foresight in maximizing the degree of manning of their ships, and so the stamina of the crews.

At the end of the Persian advance as here projected into the Strait, just before the fighting began, a very critical phase occurred when the commander of the Persian vanguard saw the ships on the Greek left moving away from him. If this coincided with the re-formation of the three files into one line of attack, this might already have led to confusion, especially if the Corinthians soon broke off their 'flight' and threatened to surround the head of the Persian line. There is, however, reason to think that *if* this was the purpose of the Corinthian manoeuvre it had no success, for to judge by Aischylos' testimony (*P.* 412–13) the confusion in the Persian battle-order did not come about so early and this may be one reason why the tradition about the manoeuvre is so unsatisfactory. As to their other (possible) task, the fact that there is no question of a Persian landing, nor of any attempt at it, may well signify that the presence of the Corinthian fleet, say in the entrance to Stenón Naustáthmou, was sufficient to prevent attempts being made.

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on this point, the Athenians at the start of the fighting were confronting the Phoenicians on the western wing of the Persian line, the Lakedaimonians the Ionians at the opposite side (VIII 85.1); the Aiginetans are only given a station and a very honourable part in the battle at a late stage: they then are on the extreme right (near Ákra Kinósoura) and take care of enemy ships fleeing out of the Strait in the direction of Phaleron (*ib.* 91). The Lakedaimonians are not mentioned again. Diodoros places the Aiginetans on the right with the Megarians, the Lakedaimonians on the left with the Athenians (XI 18.1&2), but this probably is not independent tradition: as far as the Aiginetans are concerned it simply is Herodotos' information pressed into a scheme (Hignett's 'pure guesswork' is inadequate: 1963: 232). If the Lakedaimonians were really on the extreme right initially, the position they would have held in a land battle (cf. Macan at VIII 85.1), they would seem to have changed places with the Aiginetans, but this transfer of positions from land to sea is just a guess, and in view of the small size and lack of experience of their navy (compared with the Aiginetans) not likely. The tradition is simply too poor for us to dogmatize. Anyhow, the quality of the tradition on this point is in itself an indication that considerations of prestige had not determined the stationing of the different fleets.

The testimonies of Aischylos and Herodotos, especially the former, are compatible with the view that the Persians realized their primary objective of forming a front equal to the defensive line of the Greeks and also succeeded for a time to hold their opponents, but ran into difficulties when the ships of the second line failed to co-operate properly, and pushed forward indiscriminately and disrupted the order of the first. Herodotos ascribes this failure to inordinate combativeness and this surely will be part of the explanation, but here again the Corinthian fleet may well have contributed by pushing back the foremost ships of the second line and so causing loss of co-ordination further down. If captains then refused to draw back for fear of seeming to flinch or tried to find room at the cost of the front line, matters could easily get out of hand, as they clearly did. By a development as just sketched the extreme left of the Greek defensive line in combination with the Corinthians, or the latter alone, may then have formed into the loop of the tunny net which became the chamber of death for the Persian vanguard. This is not to say, however, that this was the only place where the Persians met calamity. No doubt there was fighting along the whole Greek line, even if only the part of the Aiginetans was deemed worthy of mention. And the Aiginetans' successes are readily explained, since only at the exit of the Strait there was room for the Persian ships to turn and try to get away (VIII 91), thus exposing their vulnerable sides to ramming.

The outcome of Salamis

In Lazenby's view 'when darkness had put an end to the fighting at Salamis, neither side probably fully appreciated what had happened' (1993: 198). This is a very strange thought, if only in view of Xerxes' bookkeeping secretariat (VIII 90.4), which will not have limited its tally to successes only. At most such uncertainty may, and indeed will, have been the reaction of the Greek allies, whose proneness to panic before the battle certainly does not betray self-confidence in the face of the numerically superior opponent. The tradition that they expected Xerxes to attack a second time suggests that they could not at first believe in the extent of their success.

However that may be, for both sides the real uncertainty no doubt was about the future, near and further ahead. At sea the Persians

now had to prepare for defence against a potentially superior enemy, a new situation for them, and for allaying and preventing disaffection among their subjects, those in the Aegean in the first place. How these problems were tackled, if indeed they were, remained unknown to any one of Herodotos' informants: there is not a word about it in his work. The Greek allies on the other hand had to make even more dramatic decisions: in the first place and most importantly, whether and how to keep their triremes—still a brandnew and extremely expensive possession for almost all the allies—in commission without overstraining the capacities, financial and in personnel, of the proprietor states; secondly whether to remain on the defensive or not. Again, Herodotos' informants had nothing to report on the discussion of these vital problems.

For the Persians the situation was no doubt really critical. In the perspective of my reconstruction of the battle and of the losses the conclusion is inescapable that they can have entertained no illusions about the possibility of a continued presence of their naval forces in the neighbourhood of Athens. Not only that the effective numerical strength of their remaining fleet was now inferior to that of the Greeks (see above, at n.18) and that further the late season must have made the commissariat precarious, not to say desperate. Since moreover the Phoenician corps d'élite of their fleet had suffered irreparable loss, they were left with ships that were for the most part manned by Greeks, who to say the least could no longer be trusted to choose Persian pay rather than the adventure of freedom. The Persian awareness of this problem is made very clear in Herodotos' emphatic statement that the majority of the marines in the fleet overwintering in Kyme and Samos were Iranians (VIII 130.2). That surely was a very necessary precaution.

As long as the Greek allies stayed on the defensive, i.e. to the west of the Aegean, the Persians had a chance to put their relationship with their Aegean subjects on a new basis. But if a Greek fleet went on the offensive, chances were—and this threatened anyway—that their crews would desert en masse. Such an offensive however the Persians will not have expected at very short notice, no doubt rightly. Herodotos says as much (VIII 130.3). For one thing, the Greek crews, having been in action now for several months, were needed ashore for reaping and sowing. Also, they will have presumed that the allies would have great difficulty in organizing and above all financing a naval offensive immediately after the

supreme effort of the Salamis campaign. The validity of such a presumption is proved by the attempts of the allies immediately after Salamis to extort funds from Andros, Karystos, Paros and other islanders (VIII 111–112).

In short, I have no doubt that what is suggested by Herodotos is true, viz. that Xerxes' fleet left Athens very soon after the day of the battle (VIII 107.1: see Busolt 1895: 715; Hignett 1963: 240), to gain time for a salvaging operation in their most western satrapy, especially its maritime part. It is clear however that the withdrawal of the Persian fleet was not such a simple affair as Herodotos' informants made it seem. Fortunately there are indications in his material, which he placed in a different context (where they also belong), but which have relevance here. In the first place we are told that Mardonios, in selecting the troops with which he intended to stay in Greece after the departure of his king, disembarked the Egyptian marines, who had been so successful in the last fight off Artemision, and incorporated them in his army (IX 32). This, as Hignett rightly stresses, 'can only refer to the short period which elapsed between the battle of Salamis and the departure of the Persian fleet from Attica' (1963: 246). He then very naively adds that 'the decision to transfer the Egyptian marines to Mardonios' army proves that the Egyptian ships were not intended to play any further part in the war,' and further assumes that Herodotos' mentioning the sending home of the Phoenicians alone at a later stage from the Asiatic coast implies that 'the Egyptian and other non-Greek ships had been dismissed earlier.'

On Hignett's own presupposition—that Xerxes' naval forces included a 'national' Egyptian fleet manned by Egyptian rowers and (particularly warlike) Egyptian marines-the assumption that this fleet, which as I have argued had seen no action after Artemision (but even if it had, as Hignett probably assumes), should have been sent to its home base after Salamis, in a province of the empire that had revolted only a few years before, is utterly improbable. It is much more likely that the disembarking of the battle-scarred marines was a precaution against their absconding with the ships and leading, or reinforcing, a new rebellion.

In the second place the sending home of the Phoenician ships, which Hignett brings up in connection with that of the Egyptian fleet, is assessed just as contestably, not only by Hignett (see e.g. Burn 1962: 501), and their case also raises problems. Herodotos

mentions their dismissal at the beginning of his report on the battle of Mykale, i.e. almost a year after Salamis. According to him the Persian commanders did not want to fight a sea-battle, since they considered their fleet not a match for the Greeks (IX 96.1–2) and had sent the Phoenicians away. Diodoros very improbably makes the Phoenicians abscond on their own initiative in reaction to the execution of some of their commanders by Xerxes, which made them fear for their own lives (XI 19.4; cf. Hdt. VIII 90).[24] In my view this is no more than a figment devised to explain the absence of the Phoenicians in the Kymaian winter quarters or in the battle of Mykale itself. For if at Salamis all the Persian ships did have Iranian marines on board—as Herodotos asserts: see above, II n.35—such collective desertion of all the remaining Phoenician ships must have been practically impossible. On the other hand, Diodoros's timing of the departure of the Phoenicians immediately after the battle of Salamis—again based on local Kymaian tradition preserved by Ephoros?—makes very good sense and is not irreconcilable with Herodotos' report (IX 96.1) since the latter's wording may signify that he dated the sending away well before the arrival of the Persian fleet in the waters off Mykale.[25] The problem with Herodotos' report is of course whether we must understand that the Persian commanders considered their fleet too weak when it still included the Phoenicians and sent them away for that reason, or that they did thus assess their strength because they had sent away the Phoenicians at an earlier moment.

Macan (at IX 96) argues that it is scarcely credible that 'the Phoenician fleet was clean dismissed to save it from a battle, and in the presence of the enemy' and that 'if it was at Samos in the spring of 480 <read 479> B.C. it would have retired on the mainland and

[24] I suppose that lost self-control on both sides resulted in the unfortunate incident: high Persian officers may well have been the prime culprits, the king being confronted with a fait accompli (for a contrast cf. VII 146).

[25] Herodotos' words 'τὰς δὲ Φοινίκων <νέας> ἀφῆκαν ἀποπλέειν' have been interpreted by Stein and Sitzler as meaning that the admirals had sent them away some (long?) time before, the aorist ἀπῆκαν being taken as pluperfect. Van Groningen's comment: 'This is extremely odd! Have the Phoenicians taken to flight?' seems to imply that he was of the same opinion. Macan's note on this point at IX 96 is unsatisfactory. Of course, the sending away of the Phoenicians so promptly combined with the tradition about the executions was bound to provoke stories as that reported by Diodoros.

helped to defend the fortified camp on Mykale; or, if detached from the rest of the fleet, it would have been employed on some special service—an advance on the Kyklades, left exposed by the Greeks, or more probably to operate upon the rear of the Greek force or to attack the ships, after the greater part of the Greek forces had been drawn on to the mainland, and induced to debark.' The former of these suggestions seems eminently reasonable, not to say self-evident; the second however presumes something that, once one thinks of it, is utterly implausible, viz. that the Persians reckoned only with the dangers that subsequently became manifest, such as the Greek offensive leading to Mykale, or that are implicit in Herodotos' report on the retreat of the Persian army and are presupposed by those who make the Phoenician fleet guard the coast of Thrace (see How, Wells 1928: II 329).

As I have argued (above, p. 12f.) the Persian naval arm with its infrastructure must have been created in the first place to guarantee the King the undisturbed possession of the coastal lands of his realm, but also to protect the inhabitants of these lands against raids and attacks from the seaside. The first specific objective for which the fleet was employed was the conquest of Egypt and the elimination of its navy, followed after some years by the same treatment of Samos, Egypt's one-time ally, to safeguard the king's possessions in Syria-Palestine and in western Asia Minor respectively. The prompt disembarkation of the Egyptian marines after the lost battle of Salamis must be judged against this background. It was a safety measure that must have been considered absolutely unavoidable.

However, the protection of the king's coastal subjects, such as will have been important in the case of Polykrates' elimination, was more urgent than ever now. By keeping all their remaining naval strength in the Aegean the Persians would have left the entire easterly basin of the Mediterranean without any naval defence against possible, not to say probable, reprisals of the Greeks.[26] What the Greek fleet did to Andros and others (VIII 111–112) it might easily try to do to Sidon and Tyre and on a much larger scale than Dionysios of Phokaia's marauding expedition of fourteen years before. After the débâcle of Salamis it was urgent to take measures to protect the

[26] I consider it most unlikely that naval forces of any strength had stayed behind in the Levant once Xerxes' armada had been concentrated in the Aegean.

maritime cities in the Levant and there was little choice as to who should do it. Detaching the Cyprian fleet (so called) or indeed the Egyptian for this assignment cannot have been considered for one moment: we have already seen what happened to the Egyptian fleet. The crews of the Cyprian ships may be presumed to have been at least half Greek,[27] hence inclined to disaffection provided they could join in with a general Greek liberation movement (as they had done with the Ionian revolt: V 104). The Cyprian cities moreover had had ties with Egypt, which might be reaffirmed again.[28] In comparison the Phoenicians probably were considered the most reliable of the naval subjects and in any case, because of their naval expertise, capable of accomplishing this task even with the reduced strength that was left of the eastern fleet.

Still, this assignment—of which I have no doubt—will not have been the only reason why the Phoenicians were sent home immediately after the lost battle. No doubt very many of the sailors and oarsmen of their ships were professionals who were recruited among the merchant sailors of the Phoenician cities: hence the superiority of the ships on which they served. In the circumstances these men had now been cut off from their normal work for a very long time, no doubt to the great detriment of Phoenician trade, quite apart from the effect of the Phoenician losses. This effect of protracted mobilizations of their navy must have been made clear to the Persian authorities from the moment their navy came to 'depend' on the Phoenicians. Arrangements must have been made from the beginning to mitigate the damage. One obvious measure was to release ships and crews as soon as operations came to an end (and to instruct commanding officers to be punctilious about it). In this case there will have been no hesitation as other considerations led to the same demand. There is for that matter good reason to suppose that 'Phoenician' ships still remained after the huge losses in the battle. Even if all the ships in the vanguard of 207 were Phoenician and were all lost, some 100 of the original 300 should have been left. Indeed, as we shall see, there were more ships available.

[27] Herodotos stresses that their equipment was mostly Greek (VII 90).

[28] As they were at the beginning of the fourth century when Euagoras of Salamis was allied with the Egyptian king Akoris and Athens and on that basis made conquests in Cilicia and Phoenicia (see Spyridakis 1935: 59–60).

Regarding the rest of Xerxes' armada, soon under way to Kyme, Herodotos clearly had little detailed information, but what he has to say is revealing (VIII 130). This is that at the beginning of spring 479 the fleet was concentrated in Samos with orders to guard against Ionian defection. Its strength according to Herodotos then was 300, the marines mostly Persians and Medes. The (new) commanders did not expect the Greeks to come to Ionia, but assumed that they would be satisfied to guard their own land, which is to say that they expected the Greeks to have the difficulties I just mentioned with keeping their fleet mobilized. As to their own strength, Herodotos' number of 300 is not improbable when related to the 700 or more that remained after Salamis (above, p. 130). From the '700' must be subtracted the Phoenician fleet that was sent home, perhaps with other ships attached (see below, p. 144), numbering 400 at most, but presumably coming up to less than that. The remaining difference may then be explained as due to the desertion of 'Ionian' oarsmen from the winterquarters and the abandonment of ships damaged in the storm and the battles.[29]

As to the crucial question of how many of Herodotos' 300 ships could really be made battle-worthy he gives us no direct indication, but the fact that the commanders promptly gave up any idea of putting up a defence with their fleet speaks volumes: its real operational strength can hardly have exceeded one hundred ships. Herodotos makes the Samians stress the fact that the Persian ships were bad sailers, i.e. that they had incomplete crews.[30]

Regarding the fleet of the Greek allies our information is meagre, understandably so since it was not involved in any spectacular naval action.[31] Two facts are given: the number of ships mobilized and

[29] Diodoros improbably asserts that the Persian ships in Samos numbered more than 400 (XI 27.1). This may go back to a wild correction by Ephoros and as such is a negligible variant.

[30] His words are: τάς τε γὰρ νέας αὐτῶν κακῶς πλέειν καὶ οὐκ ἀξιομάχους κείνοισι εἴναι: IX 90.3 For the meaning of the term κακῶς πλέειν plein and the like see Wallinga 1993: 178ff.

[31] No doubt the victory of Mykale was a feat of the first order strategically, but I doubt if the Greeks of the time saw it as a triumph of the fleet as such. Such negative appreciation no doubt brought with it a lack of attention for the details of the operations preceding the Greek landing with consequences for Herodotos' report. Still this is no ground for Hignett's ungracious complaint that he 'was apparently not very interested in <the naval operations> of 479' (1963: 249). Apart from the question whether there was much to report, it was the informants who were at fault.

the replacement as commander-in-chief of the Spartan victor of Salamis, Eurybiades, by one of the kings, Leotychides. It is implied in Herodotos' report that the 110 ships that gathered at Aigina in spring 479 (VIII 131.1) continued in that strength up to the battle of Mykale. There is no specification of which *poleis* contributed to this fleet and how many ships each, though the account of the battle produces the names of Corinth, Troizen, Sikyon and of course Lakedaimon and Athens.[32] No remark is made on the numerical inferiority of the Greek fleet in this situation, which clearly says something about the strength of the Persian fleet as perceived by the Greeks. There is indeed good reason to value the fighting power of these 110 Greek ships very highly, certainly higher than the average of the ships in the battle of Salamis. We may be confident in the first place that the crews consisted of volunteers in large part[33] and for that reason were full and that gaps could be filled from the same source anywhere in the Aegean. For many, if not all, of such volunteers the chances of booty will have been a powerful incentive.

Confronted with such a fleet the Persian commanders hardly had a choice. Even if they could bring into the field (the paper strength of) a comparable number of ships, their weakness was the crews of these ships: the longer action was delayed, the more crew members would seize at opportunities to abscond, especially those whose home was in western Asia, and the more absconded the lower the morale of the rest would sink. This no doubt had happened to the Ionian fleet at Lade in 494 (when time had been very much shorter!). No wonder therefore that Persian ships were sent away before the commanders sought the protection of the army and put the rest ashore (IX 96.2). Strategically it was surely better to save the king's ships for later opportunities than to throw them away in an unequal battle. The question is how many were saved and how many perished in the conflagration that ended the battle of Mykale (IX 106.1).

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[32] When after Mykale the fleet went on to the Hellespont to destroy Xerxes' bridges, but found them destroyed already, the commander decided to return to the home ports, but the Athenians stayed for an attack on the Chersonese (IX 114). The fact that they could lay siege to Sestos without help of the others makes probable that they must have contributed a large proportion (half?) of Leotychides' fleet.

[33] Considering the important part played by these crews in the land battle of Mykale one has to conclude that many of the men, if not all of them, brought weapons.

It is here that it looks as if Herodotos' informants failed him miserably and on several counts: not only are no figures given for the ships sent away, nor for those landed on Mykale, but not a word is said about the origin of the contingents involved. The only exception are the Phoenicians, the really strange contrary case are the Asiatic Greeks. Strange, because the latter contingent had comprised 290 ships at the start of the campaign (VII 94–95) and, on the assumption that the losses in the storm off the Magnesian coast were evenly spread across the whole of Xerxes' fleet and those in the battle of Salamis not serious as far as this contingent is concerned, it should at this time still have numbered well over 200 triremes.[34] Yet Herodotos is silent about this fleet, which interested him[35] and which in the perspective of Greek *poleis* of this time must still have seemed a huge power, just as he is silent about the smaller, but for all that considerable, fleets so conscientiously enumerated on the occasion of the naval review at Doriskos.

Yet contrary to these appearances there need in my view be no question of failure on the part of Herodotos' informants: there really was nothing to report about these fleets, because in the last stage of the naval war the distinction between them had got lost. As I argued (above, p. 12f.), the ships as such were not Phoenician or Cyprian etc., but were the king's and could be redistributed among the available oarsmen and deck-crews, or left unmanned, as it suited the naval staff. When the 'Phoenician' fleet was sent home, the oar-crews of its ships did not necessarily have to be Phoenician, nor did they have to be full. The ships described by Herodotos as Cilician may well have been sent home at the same time, their commanders ordered to collaborate with the Phoenicians in the defence of the Levant, if indeed they were not simply amalgamated with the so-called Phoenician fleet.[36]

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[34] If we assume that Aischylos' figure of one thousand ships for the fleet with which Xerxes arrived in Phaleron Bay was liberally rounded up (see above, p. 34 at n.7 and p. 43), the losses in the storm may be put at some 20% of the original 1200, which works out at *c.*60 for the Asiatic Greek fleets and a rest of *c.*230.

[35] He refers to it as the 'Ionian ships' (VIII 130.2), an inadequate term which suggests embarrassment.

[36] That Herodotos mentions the Phoenicians only may be due to the preoccupation of his Greek informants with this people.

As far as the ships manned by Asiatic Greeks are concerned, the fact that Herodotos has a remark on the 'Ionian' ships in the Persian fleet at Samos (VIII 130.2), does not in my view necessarily signify that any specific information about a Ionian fleet was preserved. It rather means that in his questioning he used the term Ionians as *pars pro toto* for all the Asiatic Greeks, just as he makes the Persians at Samos guard against a 'Ionian' revolt, which restriction of course cannot be taken to rule out that it was a revolt in the whole of western Asia Minor they hoped to forestall. Certainly such formulations need not signify that the Persian commanders at Samos had sent home the Dorian, Aiolian and Hellespontine 'fleets' in their naval force (not to speak of others), as Hignett strangely seems to consider possible (1963: 246). The almost total lack of any mention of these and other fleets in Xerxes' naval arm after Doriskos and the silence about their achievements and in particular their losses to my mind makes certain that such fleets never had been operational units in the full sense. In this perspective the fact may not be accidental that achievement and losses are mentioned at all in only two cases—the Cilician and Egyptian navies—and at the occasion of the fights of Artemision when the whole navy probably still was more in marching-order than in battle-array.

The final elimination of the Persian navy in the Aegean poses a last intriguing problem. At the end of the battle of Mykale, Herodotos reports, the Greek victors set fire to the Persian ships and the rampart that had been built around their camp (IX 106.1, cf. 96). Again, no particulars are given and no figures. On the prevalent modern view of the Persian naval organization this is very strange, since the ships in question ought to have comprised the remnants of the Ionian, Dorian etc. fleets and the conflagration therefore a catastrophe for the *poleis* concerned. Bound up with this problem is that of the fleets of the first Ionian *poleis* to join the Greek alliance against Persia. Since after Salamis the Persians' first worry was the possibility of a second Ionian revolt, it is of course inconceivable that 'Ionian' ships as such were allowed to go home at whatever stage of the naval operations (i.e. up to the moment the Persians decided to seek shelter on the beaches). If any, it was these ships that were kept together under Persian surveillance, i.e. controlled by Iranian marines, as Herodotos stipulates (VIII 130.1). In accordance with this there is no trace of such ships in the hands of the Ionian envoys who came to Aigina in spring 479 or in those of the Samians who later came

to Delos, both to declare their willingness to defect (VIII 132, IX 90). These men will indeed have travelled in pentekontors or suchlike smaller vessels.

In this light it seems certain that the commanders of the Persian navy were in control of all the ships with western Asian crews up to the eve of the battle of Mykale. Does this mean that these hundreds of ships were all hauled on land then and incorporated into a rampart[37] and subsequently all burnt to ashes without any comment on this terrible waste reaching Herodotos' ears or being spontaneously uttered by himself? This seems most improbable. To my mind the laconic way the burning of the ships is recorded by Herodotos rather suggests that only a modest number was involved, such as would suffice to form the framework of a rampart. This would imply that the Persian commanders, as soon as they had concluded that they were not a match for the Greek fleet, had seen to it that as many ships as could be missed in the following operation were taken to safety, either in the base at Kyme or in the Levant. In this perspective McDougall's suggestion (1990: 147) that the Persian ships that were finally used in building the rampart 'had been damaged before and during the battle <of Salamis> and were, therefore, no longer serviceable without extensive repair' is worth serious consideration, to say the least. At any rate, to provide protection for what was left of the crews the refuge did not need to be spacious and fifty or sixty triremes could easily be worked into a rampart of some two kilometres long, more than enough for any numbers we may impute to the Persian command.

The sorry state of our information for the year 479 is really unexpected because the events were so enormously important for the 'Ionians', Herodotos' fellow-countrymen. All the islands were restored to freedom. a promise of liberation was in the air for the coastal parts of Asia and even in case that was not realized the position of *poleis* like Miletos and Halikarnassos vis-à-vis the Persians might improve: they would have to be courted now. One expects all sorts of local traditions to come up, those in Halikarnassos and Samos

[37] In a very perceptive study of the Persian fleet at Mykale McDougall has rightly insisted that in Herodotos' phrase περιβαλέσθαι ἕρκος ἔρυμα τῶν νεῶν the latter two words are to be taken as a genitive of definition, i.e. the ships were the material of the rampart (1990: 147–8).

coming to Herodotos' attention in any case. Proof of this are his anecdotes about Artemisia and his remarks concerning the Samian *orosangai* and 'trierarchs' (VIII 68, 87; 85). But what is notable about these traditions is their very doubtful quality, especially Artemisia's advice to Xerxes not to attack the Hellenes in the Narrows of Salamis and to let them scatter and flee to their homes. This evidently is a fiction, thought up by someone who had forgotten that already before the actions at Artemision the fleet's prime instruction was to let no enemy ship escape. It is thoroughly improbable that someone in a position of authority made such a suggestion, let alone that the king delighted in such a piece of stupidity. Just as suspect is the tale of Artemisia's exploits in the sea-battle.[38]

However, what is suspect in a more general sense is the restricted character of these traditions. Apart from Artemisia and the Samians only the Samothrakian javelin throwers and Milesian troops are mentioned; Chios, Lesbos and the Hellespontines, Dorians and Karians are not, but it is difficult to believe that Herodotos had no information at all about these important Persian subjects. It is also remarkable that the poverty of the 'Ionian' traditions covers the whole of Xerxes' expedition. Herodotos gives no details nor anecdotes about their experiences in the actions off Artemision (except to report their concern for the Greek allies) nor about Salamis (the Samothrakians excepted), where admittedly the position of the Ionians is mentioned, but in a vague and possibly misleading way.[39]

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[38] For Artemisia's counsel see Busolt 1895: 696 n. 6 'offenbar von ihren halikarnassischen Freunden zum größern Ruhme der Fürstin erfunden'). As to her sinking of one of her own ships and in that way evading an Athenian attack, because the Athenian commander concluded from her behaviour that she either was one of his fellow-combatants or a defector from the cause of the barbarians, this tale is clearly a hoax: it presupposes that her ship could not readily be distinguished from Athenian ones nearby, but at the same moment could be recognized by someone at Xerxes' side by her ensign, whereas all the while a high prize had been put up by the Greeks for her capture (VIII 93.2). For the *orosangai* and the trierarchs see above, p. 41f.

[39] It is of course said that the Ionians were on the Persian left (eastern) wing confronting the Lakedaimonians (VIII 85.1), but if the Persian vanguard was Phoenician in its entirety (see above, p. 130) and if the Phoenicians had indeed reason to accuse the Ionians of treacherous behaviour to the detriment of their ships (VIII 90.1), it is much more probable that their ships were part of the 'ships stationed behind' (VIII 89.2) that at the beginning of the Persian onslaught came up behind, i.e. at first to the east of, the vanguard (see Map II), and during the battle did indeed wreak havoc among the ships in front of their own line.

All this suggests that Herodotos and his prospective informants did not come to an understanding which led to fruitful questions and useful answers. Some of the things he says seem to be based on no more than unfounded claims, like the allegation that many <!> Ionian trierarchs could be mentioned by name who had taken Hellenic ships (VIII 85.2). In this case Herodotos' withholding of the names probably means that he did not believe in the allegation, in any case not where the men named were concerned: other names follow immediately. This lack of rapport between the historian and his Ionian informants may also explain why Herodotos does not adequately represent the organization of the Persian navy and leaves the possibility open—to say the least—that it was comparable to that of the Delian league. This is even more openly suggested in some passages where the crews are designated by 'Ionian' informants as allies (σύμμαχοι: V 32; VII 99.3; VIII 24.3). This usage may signify no more than that the relationship between the Persian naval staff and the subjects liable to service at the oars (who could informally be considered volunteers) was not marked by the utter slavery that according to the Greeks prevailed in the army (VII 22.1, 56.1): hence the polite term of address. Nevertheless, 'ally' here is an euphemism and should not be given any weight as evidence for the organization of the Persian navy.

In Herodotos' time, when the Delian alliance was more and more exposed as an empire, such a euphemism could perhaps give rise to the notion that the position of the subjected Greeks in the Persian empire had been no worse than under the Athenian yoke. In any case, as soon as the question of the contribution of the allies, ships or money, became an important bone of contention between the partners and hotly discussed in the more important allied *poleis*, the terms of that discussion could easily creep into the evocation of the older 'alliance,' especially by informants who were not actual witnesses, but reproduced local and family tradition.

EPILOGUE

The foregoing investigations lead to new perspectives on Xerxes' great expedition and to the solution of, or new lines of approach to, several problems that have long exercised students. Also, the results imply that much criticism of the Greek traditions has been misdirected, in particular the doubts regarding Herodotos as a military historian.

Xerxes' naval preparations

One of these problems is the reputed size of Xerxes' preparations. While the traditions concerned have very generally been considered exaggerated and the figures reduced accordingly, it must be clear that as far as Xerxes' navy is in question the reductions deserve no credit whatsoever. Apart from the total Greek naval strength, which has never been taken into consideration as it should, and apart from the chance of losses by force majeure, it was the very difficult task assigned to it that compelled the Persian command to mobilize a large numerical majority in ships. Something similar had already been done for the Lade campaign in 494, not improbably for a similar reason. In any case, a simple tactical victory, enemy losses consisting as much in ships escaped as in ships destroyed or taken, evidently was what Xerxes wanted to forestall at any cost when he threatened to decapitate his captains in case any ship got away.

This unrecognized priority in Xerxes' deliberations also seems to be the explanation for the Persian behaviour at Artemision, in the context of which it is indeed mentioned. Here the fighting was twice initiated by the Greeks and, though the Persians began the third fight, the way Herodotos tells the story (VIII 15) suggests that their commanders decided to launch their attack (thus disregarding their express orders) more to strengthen the morale of their crews than to gain some substantial advantage, an advantage difficult to specify at this juncture (hence the relatively late moment they started). These fights by the way are a warning to those who are convinced that the Greeks at Salamis from the beginning acted on the belief

that their only chance of survival was in narrow waters: their position at Artemision did not have that character.

For this reason I conclude that the positions of the two fleets at Athens and Salamis were not so very much to the advantage of the Greeks as is assumed so eagerly on the basis of Themistokles' utterances in Herodotos. I do not deny that the victory of the Greeks implies that their position was strong. My point is that the Persian chances to reach their strategic objective—the catching of the entire Greek fleet—were much better *in* than outside the straits. And if I have correctly combined and interpreted the indications preserved for their plan of attack (and the first Greek reaction to it) they planned to exploit the possibilities to the full. Also, contrary to what is often surmised, their plan as such did not depend on suggestions intimated by their worst enemy. These suggestions at most led to a restricted modification of the original plan, the posting of guard ships around Salamis, and will indeed have contributed to loss of efficiency in the execution of the plan. In the descriptions of the battle however, which started with the Persian vanguard of fast ships in its intended position, this is not apparent. The difficulties of the Persians, which appear to have had to do with the co-ordination of the movements of the second line with those of the vanguard, may well have been caused by several factors, the effect of Themistokles' message being no more than one of them.

How and why things went wrong for the Persians

That things went wrong had chiefly to do with the inordinate eagerness of the men of the second line, an aspect of the battle for which Herodotos will have had plenty of Ionian witnesses. There is no plain clue in our descriptions of the battle of how combativeness—in itself of course very desirable—here degenerated into disorganization and indiscipline, and as our witnesses clearly knew nothing about the Persian command structure, speculation is pointless. Still there is what may be considered an ominous datum: it is Aischylos' list of nineteen very high officers fallen in the battle (*P.*302–330). There is no suggestion in this catalogue (nor anywhere else) that these men actually were the commanders of the attacking fleet, in fact only one of them is given a specific post within the navy. Nor is such a top-heavy array of general officers what we should expect

for an effective fighting command. Here one thinks of the aristocratic youths landed on Psyttaleia who—if I am right—were posted there on the margin of what was expected to be the decisive battle of the whole war, because they had volunteered for the chance to have some part in the victory. Similarly Aischylos' brass hats may well have troubled the king for the privilege of witnessing the thrashing of the Greek fleet from the deck of some of his triremes. Aischylos' bunch of three of them falling from one ship definitely resembles such sight-seers more than men in active command. Besides, such high-ranking eye-witnesses could make themselves useful as king's eyes in registring the fighters worthy of inclusion in the king's list of benefactors (and for this reason were granted the privilege?), but by the same token could also become the catalysts of that extreme combativeness Herodotos signalizes as leading to chaos.

However that may be, my reconstruction of the battleplan suggests another, more plausible cause of that chaos. As I have argued, the Persian plan of attack was a very finely attuned affair. The vanguard had to start out at just the right time to fully profit from the favourable circumstances around sunrise and, while nearing its attacking position, had to integrate its three files into a single line of attack. Thereafter the crews of the second line—no doubt less fully manned and therefore slower ships—had to strain every muscle to back up the first over its full width and finally some of its ships had to be detailed to land troops on Salamis.

The crucial first part of these orders was not of course executed in paradeground isolation (as in the afternoon before the battle), but in front of the enemy, whose movements in answer to the Persian attack may have been entirely unexpected, as Aischylos suggests. If therefore our descriptions suggest that the Persian vanguard did reach its position as planned or nearly so (see p. 136), this would imply that the difficulties started later, when the second line began to take part in the action and the commanders of its forward ships found that landing troops on Salamis was out of the question because the Corinthian fleet controlled the approaches. On the assumption that the reshuffling brought about by Themistokles' message was restricted to the ships of this second category (see p. 72) it is obvious that the concatenation of new orders, changed positions, nightly movements and the resulting lack of sleep will have impaired the quality of the crews concerned. At the same time and perhaps more fatally the commanders, already wrought up, as Herodotos stipulates, by the

memory of their lack of success at Artemision, were put under extra pressure by the king's mad threats. The co-ordination between the Persian lines, which probably would have been difficult even in less strained circumstances, clearly was fatally undermined.

On the other side the situation of the Greek commanders, who were much better prepared than their opponents expected, was simple in comparison. Confronted as they were with a line that did not intend to start intricate manoeuvres as the second line was to do the real damage, the Greeks' first and foremost task was to hold together like a hoplite phalanx. Further they will have tried to drive back their assailants to restrict the sea-room of the second line. In this way their deployment in a rigid line between Cape Kinósoura and Áyios Yeóryios island would indeed come to resemble the long system of nets that guides tunnies to the chamber of death.

However, Aischylos' comparison should not be pushed too far. The image of the tunny catch will have been primarily inspired by what happened to the extreme right wing of the Persians, where it drew up close to the shallows near the smaller Pharmakoussa island. Also it did not so much concern the ships, but above all the shipwrecked. The ruin of the Persian first line as a whole no doubt was the work of the Greek triremes originally stationed along the Salamis shore. Their chance came when the overzealous pressure of the Persian second line started to impair the cohesion of the vanguard and its ships were forced to expose their sides. This I imagine only happened after a period of prow-to-prow colliding, when there was little movement and no great effort was demanded of the oar crews. Something like this would explain why ramming remained dominant even during the later phase of the battle.

The testimonies Herodotos was able to collect among participants on both sides of the battle definitely suggest that these men did not explain the Greek victory by adducing superior tactics, let alone superior handling of something like the *diekplous*, as the decisive factor once the fighting had begun. Themistokles' message of course was of a different order. Aischylos' picture is not substantially different. The agreement of our chief sources on this point makes very probable that the difficulties of the Persians were to a high degree of their own making in that their battle-plan was too finely attuned and too perfectionist for the general run of their ship commanders and crews. I would indeed say that it is perfectionism rather than the enormity of their war aims that explains the extreme care with

which the Persian staff planned the whole expedition and the final blow in particular.

After Mykale

How much reason the Persians had to plan the radical elimination of Greek naval power as it had explosively grown after 483 is apparent as soon as the consequences of their defeat are considered. Not only did the Persian navy not reappear in the Aegean for the rest of the fifth century and were their conquests in Europe lost with the sole and strange exception of Doriskos, but the Athenian victors were able only few years after Salamis to organize their own anti-Persian alliance with their navy as its most important means of power. This alliance then dominated the Aegean region and beyond—temporarily down to Cyprus—for well-nigh seventy years. In it moreover were accepted as allies a large number of *poleis* in the coastal area east of the Aegean, in territory in other words that had been Persian domain since about 540 BC.

One problem here is whether the Persians tried to hold up these developments, especially the last named, and even more whether they had the means for effective countermeasures and how eventually these means were assessed by the Athenians. Modern analyses have led to very different views. Notoriously Thucydides has little to say about the earliest days of the Delian league. Meiggs for instance has explained this by arguing that Thucydides 'is not attempting a complete narrative' but is 'selecting what in perspective seems most important to an understanding of the development of Athenian power,' and by insisting that 'common sense demands that, in addition to the actions at Scyros, Carystus and Naxos, operations were carried on against the Persians' including the freeing of towns in Ionia that retained Persian garrisons (1972: 71). Briant on the other hand forcefully argues that there was no question of a speedy take-over of Ionia by either the Greek allies or the untried Delian League. In his view the successes of Pausanias and the allied fleet in Cyprus may seem spectacular, and were taken as such by Thucydides (I 94.2), but in reality were ephemeral. Up to the Eurymedon campaign there were no operations in Asia Minor, nor can the League have been considered the instrument of the liberation of the Asiatic cities during the seventies. For such a policy Athens lacked the means: the tribute

of 478 was insufficient to keep a fleet in commission that could defy *the fleets the king was able to mobilize at any moment* (my emphasis), hence the restraint of the Athenians (1996: 572f.).

These are indeed incompatible views, to choose between which is almost impossible. Still I think that probability is on Briant's side, if only because he at least takes into account a major piece on this chessboard, strangely absent from Meiggs' argument: the Persian navy (see my italics). And I am certain that he is morally in the right, though to me the notion that the king had the ability to mobilize fleets at any moment is an absolute illusion. On the basis of my analysis of the condition of Xerxes' navy after Salamis and of the character of its losses, especially the ruinous massacre of the Phoenician crews (which in my view precluded the large-scale employment of Phoenician crews for at least a generation) I consider it out of the question that the king had the ability ascribed to him by Briant. The pathetic history of the action at Eurymedon makes sure that he had not. Still, this is not the point. What counts is that the Athenians, knowing that the Persians had very many ships left after Salamis and had not lost many in the campaigns of 479, could not be sure. For this reason I am certain that Briant is right and that the Athenians had to operate very cautiously. Prior to any advance into the king's lands they had to assure themselves of their superiority at sea. Eurymedon, whatever its precise motivation, definitely served that purpose.

Herodotos and Themistokles

Herodotos leaves no doubt that of all the allied Greeks who took part in the campaign of 480 Themistokles was generally considered as the man most deserving the prize of excellence, an honour formally denied him by his jealous fellow commanders, but morally awarded to him because he was voted second best by the majority, while none of his rivals gained more than one—his own—vote. This verdict was next validated by high authority when the Spartans crowned him with an olive wreath 'for superior insight and skilfulness', and capped this prize by adding the choice gift of a chariot and the unique distinction of an exceptional escort when their guest left for Athens (VIII 123f.).

Far from casting doubt on this unprecedented homage, the account Herodotos gives of the operations of the year 480 makes crystal clear that Themistokles played a very dominant part in the direction of the Greek war effort. He is the only Athenian office-holder to be mentioned at all in this context. He commanded the Athenian contingent at Tempe; in the Greek naval arm, although his position was subordinate to that of the Spartan commander-in-chief, he was the only commander to whom strategic ideas and initiative are ascribed; he not only saw through the Persian dispositions of the day before the battle of Salamis, but succeeded in inducing the enemy to change them to the advantage of the Greeks. After Plataia, as Thucydides relates (I 89ff.), it was he who proposed to fortify Athens and Piraeus and effectively stultified Spartan attempts to interfere. As to the three critical years leading up to Xerxes' invasion Herodotos again makes Themistokles stand out as the man whose proposal to build a trireme fleet to end the war with Aigina laid the basis for the successful repulse of the Persian attack; and Plutarch adds as his paramount achievement that he put an end to the Greeks' warring amongst themselves and acted as reconciler of the *poleis* (*Them.*6.5). If historical, and I see no reason for scepticism, this particular feat is glossed over by Herodotos, who merely notes that the Greek allies at their conference of spring 480 decided to make up their enmities and to end their wars (VII 145.1).

Herodotos' reticence might be charged to bias and/or misinformation as has of course been done with regard to his assertion that Themistokles, when the terrifying warnings of the oracle at Delphi were discussed by the Athenians in 480, had only recently made his way into the first rank of Athenian politicians (VII 143.1). Such accusations have above all been made by those who have tried to move up the beginning of Themistokles' greatness to the year of his archonship, 493, and to ascribe to him from that year on a consistent policy of naval preparations against the Persian empire. However, this train of thought is made impossible by Thucydides' analysis of the genesis of Athenian sea-power (I 14, 89ff.). His final judgment on Themistokles' genius and his contribution to Athens' greatness and the lack in it of any criticism of Herodotos' supposed bias, let alone of the latter's *Gehässigkeit* lamented by Eduard Meyer, makes clear that these modern ideas were very far from his mind and indeed had to be. As I have shown (see above, p. 8) it was Thucydides

himself who in preparing his *Archaeology* had detected that the creation of the glorious Athenian navy had been in the nature of a veritable revolution, triggered off by unforseen circumstances and triggering off other developments hardly less revolutionary, this whole welter initiated and then somehow directed and superintended by the man emerging from Herodotos' history as the one outstanding Greek leader.

To be sure, the uniqueness of Themistokles' leadership in the crisis of Greece is very clearly accentuated in Herodotos' account of it, but in an indirect way, viz. by the suppression of all reference to peers or rivals. Not that there were any in reality, but I for one would not doubt for a moment that Herodotos heard names: Mnesiphilos can hardly have been the only Athenian who was represented—or represented himself—as having known better than Themistokles at a crucial moment.[1] Also, there surely must have been Athenians in the first rank of political leadership who opposed Themistokles' navy law and competed with him for commands, but clearly he dwarfed them all. Proof that no real contemporary was considered to be in his class is Stesimbrotos' allegation (*FGH* 107F2 = Plut.*Them*.4.3) that his navy bill was opposed by Miltiades: only the planting of a name of such eminence—however misplaced—could be decisive in arguing that the building of Themistokles' new navy had not been a good thing.[2] The tradition regarding the part played by Aristeides in the crucial years is revealing: although much is made of the rivalry of the two men and the incompatibility of their characters, there is no suggestion that Aristeides opposed the navy bill (he would have been a much more obvious choice than Miltiades!) and, what is more, no indication at all of attempts to ascribe any of Themistokles' great deeds, for instance as reconciler of the *poleis*, to the arch-rival.

Much has been made of course of the rumours noted down by Herodotos about Themistokles' corruptibility. It is very curious that they are taken so seriously, for the stories in question should almost

[1] It is tempting to assume that Mnesiphilos, a member of the same deme as Themistokles, belonged to the latter's *hetaireia* (cf. Connor 1971: 22 n.35 and on Mnesiphilos Frost 1980: 21–23, 67–68).

[2] I do not believe that any serious idea is behind S.'s allegation, certainly not that he 'made Miltiades a spokesman for hoplite primacy and against naval power' (Frost 1980: 87).

certainly be explained in an entirely different way. Modern assessments in any case do not, or not sufficiently, take into account that these cases, few in number as they are, have without exception to do with running the huge navy the Greeks had assembled in 480 and keeping it in commission during several months on end, a task that was entirely new to the allied authorities, for which no procedures existed and which must have caused untold complications. The stories suggest that money was an important instrument for disentangling the problems involved: for the Euboians to persuade the allies not to abandon their position at Artemision,[3] for Themistokles to induce his commander-in-chief and the most important of his fellow-commanders to desist from their plan to run away to the south (VIII 5) and also to stifle such defeatist inclinations among his own subordinates (Plut.*Them.*7.6). Difficulties about the pay of the crews are anyway to be expected and indeed explicitly mentioned in the debate raging between Kleidemos and other Atthidographers about who enabled the Athenian navy to prepare for the battle of Salamis, the Council of the Areiopagos or Themistokles (Aristotle, *Ath.*23.1; Plut.*Them.*10.6–7).[4] When even after Salamis the allied fleet had to be kept in commission in view of the danger of a further Persian offensive, contributions were extorted from several Aegean *poleis*, reputedly on the initiative and for the personal benefit of Themistokles (VIII 112), but in reality because the war chests of the allies, and certainly that of Athens, were exhausted.

Taken by itself each of these anecdotes as they were told in Herodotos' time and later may be problematic,[5] but their joint message must doubtlessly be taken seriously: the Greek commanders

[3] The Euboians may well have reckoned with the possibility (if not the certainty) that active naval resistance of the Greek allies would result in the Persians' passing by their island because the movement of their fleet had to be co-ordinated with that of their army.

[4] I consider Frost's treatment of this episode as a falsification ('almost certain<ly>') very wrongheaded (1980: 107). To suggest that there was no question of pay and to doubt the existence of 'sacred ships' in 480 really is hypercritical (for the sacred ships see Wallinga 1993: 18ff. and 2000: 137).

[5] Embellishments are not of course to be excluded: the amounts of the bribes in VIII 4–5 may be exaggerated. Also the initiative for the Euboian contribution may have been on the receivers' side, making it comparable to the later ones of the Parians and Karystians. Van Groningen assesses the situation at Artemision correctly in his commentary (at VIII 4.2). Hignett is on the same (right) track speaking of 'war contributions for the upkeep of the confederate fleet' (1963: 244; he confuses the issue by also talking of bribes paid to Themistokles and other commanders by

needed money to run the operations of their fleet smoothly and took it where they could. Herodotos' informants clearly had no idea of this aspect of the operations and even if commanders of the fleet did come under suspicion of peculation, their spectacular success will have been in the way of proper auditing, had it been possible. For this reason Herodotos' informants, regardless of their feelings vis-a-vis Themistokles, did not in all probability have any facts and all scope for fantasizing. This does not make these stories a safe basis for accepting the implied criticisms.[6]

Even if in his outline of Themistokles' career Herodotos did not omit the dark side of his reputation, it cannot be denied that he gave full weight to his contributions to the Greek success in 480 and to the later greatness and power of Athens: his introduction of the man (VII 143) has very properly been called a drum-roll (Fornara 1971: 68). That Herodotos shows a certain reserve and avoids panegyric almost certainly has to do with his conviction that a man's life can only be judged positively if his end was a happy one. His reserve surely was caused also by his realization that the growth of Athens to a big power became a threat to the peace in the Greek world (thus convincingly Strasburger 1982: 622).

Thucydides' judgment of course is unreservedly positive. This is to be explained as the result of his much more thorough analysis of what the sudden genesis of the Athenian trireme navy had brought about and of Themistokles' leading part in the process. Consequently he saw much sharper how unprecedented and revolutionairy that genesis had been. The way moreover Themistokles had managed the first decisions and then directed all that followed, including the use of the navy in the war that resulted, must have made him in Thucydides' eyes the embodiment of something else that was new, viz. politics in a new sense, the 'unrestricted realism of statesmanlike dealing' (Strasburger 1982: 553). Undoubtedly Herodotos' informants were blind to such insights: like his fellow-commanders they may well have judged his capacity for deep analysis of the tactical and strategical (and for that matter power-political) issues merely dis-

'Islanders who had the misfortune to take the wrong side <and> sought to propitiate the leaders of the victorious Greek fleet.' Nothing in Herodotos justifies this suggestion.

[6] For a refreshingly sober discussion of Themistokles' estate see Frost (1980: 209 and especially n.17).

turbing, but if this is allowed for one must conclude that Herodotos' assessment of Themistokles' merits is adequate. For him also Themistokles was pre-eminently the architect of the Greek victory at sea and of Athens' later power and greatness.

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